DVR User Manual

For H.264 4/8/16-channel digital video recorder

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CAUTION

- Please read this user manual carefully to ensure that you can use the device correctly and safely.
- We do not warrant all the content is correct. The contents of this manual are subject to change without notice.
- This device should be operated only from the type of power source indicated on the marking label. The voltage of the power must be verified before using. Kindly remove the cables from the power source if the device is not to be used for a long period of time.
- Do not install this device near any heat sources such as radiators, heat registers, stoves or other devices that produce heat.
- Do not install this device near water. Clean only with a dry cloth.
- Do not block any ventilation openings and ensure well ventilation around the machine.
- Do not power off the DVR when the device is function. The correct procedure to shut down DVR is to stop recording firstly, and then use "shut down" button from the menu, and finally switch off the main power.
- This equipment is for indoor use only. Do not expose the machine in rain or moist environment. In case any solid or liquid get inside the machine's case, please cut off the power supply immediately, and get it checked by a qualified technician.
- Refer all servicing to qualified service personnel. No any parts repaired by yourself without technical aid or approval.
- When this product is in use, the relevant contents of Microsoft, Apple and Google will be involved in. The pictures and screenshots in this manual are only used to explain the usage of our product. The ownerships of trademarks, logos and other intellectual properties related to Microsoft, Apple and Google shall belong to the above-mentioned companies.
- This manual is suitable for 4/8/16-channel digital video recorders. All examples and pictures used in the manual are from 16-channel DVR.

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1 Introduction

1.1 DVR Introduction

This model of DVR (Digital Video Recorder) is designed for high performance CCTV solutions. It adopts state of the art video processing chips and embedded Linux system. Meanwhile, it utilizes most advanced technologies, such as standard H.264 with low bit rate, Dual stream, SATA interface, VGA output mouse supported, IE browser supported with full remote control, mobile view(by phones), etc., ensuring powerful functions and high stability. Due to these distinctive characteristics, it is widely used in banks, telecommunication, transportation, factories, warehouse, and other related applications.

1.2 Main Features

COMPRESSION FORMAT

- Standard H.264 compression with low bit rate and better image quality

LIVE SURVEILLANCE

- Support VGA/HDMI output
- Support channel security by hiding live display
- Display the local record state and basic information
- Support USB to make full control

RECORD MEDIA

- Support two SATA HDDs to record for a longer time without any limitation

BACKUP

- Support USB 2.0 devices to backup
- Support saving recorded files with AVI standard format to a remote computer through internet

RECORD & PLAYBACK

- Record modes: Manual, Schedule, Motion detection and Sensor alarm recording
- Support recycle after HDD full
- Resolution, frame rate and picture quality are adjustable
- 4 CH DVR supports full D1 real-time recording; 8 CH DVR supports 4D1+4CIF recording; 16 CH DVR supports full CIF real-time recording
- 4 audio channels available
- Two record search mode: time search and event search
- Support 4/8/16 screen playback simultaneously
- Support deleting and locking the recorded files one by one
- Support remote playback in Network Client through LAN or internet

ALARM

- 1 channel alarm output and 4/8/16 channel alarm input available
- Support schedule for motion detection and sensor alarm
- Support pre-recording and post recording
- Support linked channels recording once motion or alarm triggered on certain channel
- Support linked PTZ preset, auto cruise and track of the corresponding channel

PTZ CONTROL

- Support various PTZ protocols
- Support 128 PTZ presets and 8 auto cruise tracks
- Support remote PTZ control through internet

SECURITY

- Customize user right: log search, system setup, two way audio, file management, disk management, remote login, live view, manual record, playback, PTZ control and remote live view

- Support 1 administrator and 63 users.
- Support event log recording and checking, events unlimited

NETWORK

- Support TCP/IP, DHCP, PPPoE, DDNS protocol
- Support IE browser to do remote view
- Support setup client connection amount
- Support dual stream. Network stream is adjustable independently to fit the network bandwidth and environment.
- Support picture snap and color adjustment in remote live
- Support remote time and event search, and channel playback with picture snap
- Support remote PTZ control with preset and auto cruise
- Support remote full menu setup, changing all the DVR parameters remotely
- Support mobile surveillance by smart phones , Symbian, WinCE, Iphone , Gphone, or Blackberry, 3G network available
- Support CMS to manage multi devices on internet

2 Hardware Installation

Notice: *Check the unit and the accessories after getting the DVR.*
Please don't power up until the physical installation is complete.

2.1 Install Hard Drive

***Notice**: 1. This series DVR supports two SATA hard drive. Please use the hard drive the manufacturers recommend specially for security and safe field. Please refer to "Appendix C Compatible Devices 2".*
2. Please calculate HDD capacity according to the recording setting. Please refer to "Appendix B Calculate Recording Capacity".

Step1: Unscrew and Open the top cover.
Step2: Connect the power and data cables. Place the HDD onto the bottom case as Fig 2-1.
Step3: Mount the HDD as Fig 2-2.

***Note:** For installation convenience, please connect the power and data cables first, and then wind the screws to fix the HDD.*

Fig 2-1 Connect HDD

Fig 2-2 Screw HDD

2.2 Front Panel Instructions

***Notice**: The front panel descriptions are only for reference; please make the object as the standard.*

Item	Type	Name	Description
1	Work state indicator	Power	Power indicator, when connection , the light is blue
		HDD	When HDD is writing and reading , the light is blue
		Net	When access to network , the light is blue
		Backup	When backup files and data, the light is blue
		Play	When playing video, the light is blue
		REC	When recording, the light is blue
2	Compound button	MENU/+	1. Enter menu in live 2. Increase the value in setup
		BACKUP/-	1. Decrease the value in setup 2. Enter backup mode in live
		RECORD/FOCUS	1. Record manually 2. FOCUS function enables at PTZ mode.
		REW/SPEED	1. Rewind key 2. SPEED function enables at PTZ mode
		SEARCH/ZOOM	1. Enter search mode 2.ZOOM function enables at PTZ mode.
		PLAY /IRIS	1. Enter play interface 2. IRIS function enables at PTZ mode
		FF/ P.T.Z.	1. Fast forward 2. Enter PTZ mode in live
		STOP/ESC	1. Quit play mode 2. Exit the current interface or status
3	Digital button	1-9	Input number 1-9 or choose camera
		0/10+	Input number0, 10 and the above number together with other digital keys
4	Input button	Direction button	Change direction to select items
		Multi-screen	Change screen display mode like1/4/9/16 channel
		Enter button	Confirm selection
5	IR receiver	IR	For remote controller

Item	Type	Name	Description
6	USB	USB port	To connect external USB devices like USB flash, USB HDD for backup or update firmware; or connect to USB mouse
7	POWER	POWER	Switch off

2.3 Rear Panel Instructions

Fig 2-3 Rear Panel for 4-ch

Item	Name	Description
1	GND	Grounding
2	RS485	Connect to speed dome or keyboard
3	ALARM OUT	1-ch relay output. Connect to external alarm
4	ALARM IN	Connect to external sensor 1-4
5	HDMI port	Connect to high-definition display device
6	VGA port	VGA output, connect to monitor
7	LAN	Network port

Item	Name	Description
8	USB port	Connect USB mouse or connect external USB devices
9	DC12V	Power supply
10	Audio in	4 CH Audio input
11	Video in	Video input channels from 1-4
12	Audio out	Audio output, connect to the sound box
13	CVBS	CVBS video output
14	Spot	Connect to monitor as an AUX output channel by channel. Video would be displayed without OSD.

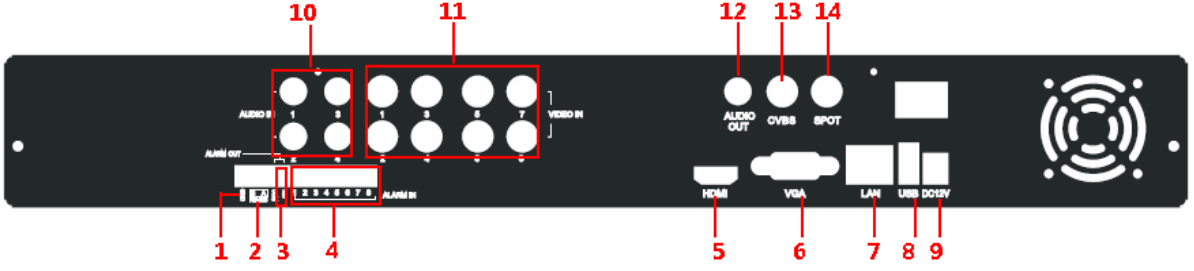


Fig 2-4 Rear Panel for 8-ch

Item	Name	Description
1	GND	Grounding
2	RS485	Connect to speed dome or keyboard
3	ALARM OUT	1-ch relay output. Connect to external alarm
4	ALARM IN	Connect to external sensor 1-8
5	HDMI port	Connect to high-definition display device
6	VGA port	VGA output, connect to monitor

Item	Name	Description
7	LAN	Network port
8	USB port	Connect USB mouse or connect external USB devices
9	DC12V	Power supply
10	Audio in	4 CH Audio input
11	Video in	Video input channels from 1-8
12	Audio out	Audio output, connect to the sound box
13	CVBS	CVBS video output
14	Spot	Connect to monitor as an AUX output channel by channel. Video would be displayed without OSD.

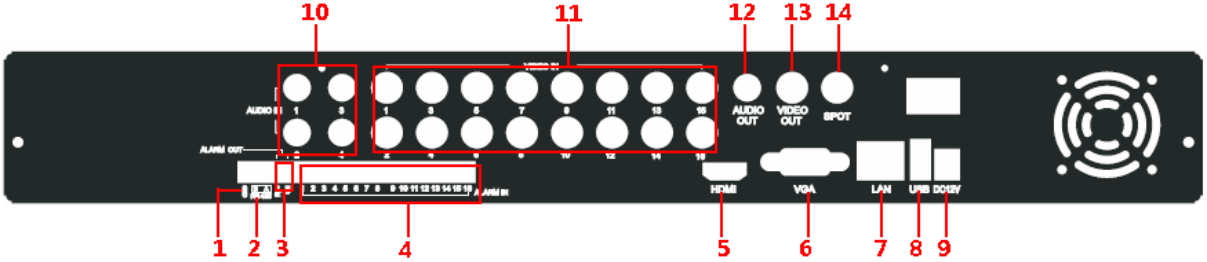


Fig 2-5 Rear Panel for 16-ch

Item	Name	Description
1	GND	Grounding
2	RS485	Connect to speed dome or keyboard
3	ALARM OUT	1-ch relay output. Connect to external alarm
4	ALARM IN	Connect to external sensor 1-16
5	HDMI port	Connect to high-definition display device

Item	Name	Description
6	VGA port	VGA output, connect to monitor
7	LAN	Network port
8	USB port	Connect USB mouse or connect external USB devices
9	DC12V	Power supply
10	Audio in	4 CH Audio input
11	Video in	Video input channels from 1-16
12	Audio out	Audio output, connect to the sound box
13	Video out	Video output
14	Spot	Connect to monitor as an AUX output channel by channel. Video would be displayed without OSD.

2.4 Remote Controller

It uses two AAA size batteries:
Step1: Open the battery cover of the Remote Controller
Step2: Place batteries. Please take care the polarity (+ and -)
Step3: Replace the battery cover
Key point to check in case the remote doesn't work.
1. Check batteries polarity
2. Check the remaining charge in the batteries
3. Check IR controller sensor is mask
If it still doesn't work, Please change a new remote controller to try, or contact your dealers
The interface of remote controller is shown in Fig 2-6 Remote Controller.

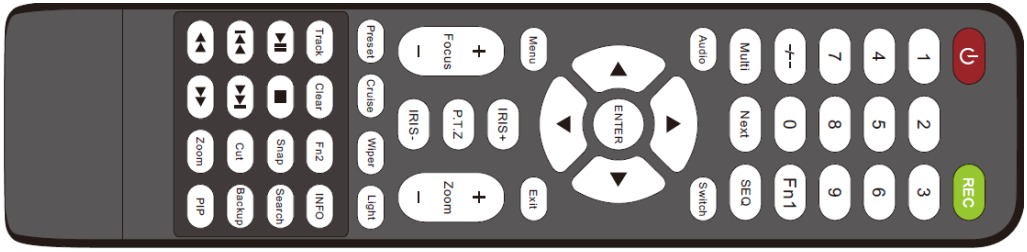


Fig 2-6 Remote Controller

Button	Function
Power Button	Switch off—to stop DVR. Use it before turning off the power
Record Button	To record manually
-/-- /0-9 Digital Button	Input number or choose camera
Fn1 Button	Unavailable temporarily
Multi Button	To choose multi screen display mode
Next Button	To switch the live image
SEQ	To enter into auto dwell mode
Audio	To enable audio output in live mode
Switch	To switch the output between BNC and VGA
Direction button	To move cursor in setup or pan/title PTZ
Enter Button	To confirm the choice or setup
Menu Button	To enter into menu
Exit Button	To exit the current interface
Focus/IRIS/Zoom/PTZ	To control PTZ camera. Move camera/zoom/IRIS/Focus
Preset Button	To enter into preset setting in PTZ mode
Cruise Button	To enter into cruise setting in PTZ mode

Track Button	To enter into track setting in PTZ mode
Wiper Button	To enable wiper function in PTZ mode
Light Button	To enable light function in PTZ mode
Clear Button	To return to the previous interface
Fn2 Button	Unavailable temporarily
Info Button	Get information about DVR like firmware version, HDD information
	To control playback. Play/Pause/Stop/Previous Section/Next Section/Rewind/Fast Forward
Snap Button	To take snapshots manually
Search Button	To enter into search mode
Cut Button	To set the start/end time for backup in playback mode
Backup Button	To enter into backup mode
Zoom Button	To zoom in the images
PIP Button	To enter into picture in picture setting mode

Note: You shall press P.T.Z button to enter into PTZ setting mode, choose a channel and press P.T.Z button again to hide the P.T.Z control panel. Then you can press preset, cruise, track, wiper or light button to enable the relevant function.

Operation processes with remote controller to control multi-DVR

The default device ID of the DVR is 0. It's not necessary to reset the device ID when a remote is to be used to control a single DVR. However when controlling multiple DVRs with multiple remote controllers, the user would need to configure the device ID, please refer to below steps:

- Activate remote controller to control the DVR: Turn the IR sensor of the remote controller towards the IR receiver on the front panel, press the number key 8 twice on the remote, then input device ID of the DVR to be controlled (Range from: 0-65535; the default device ID is 0) press ENTER to confirm.
- User can check the device ID of a DVR from System Setup→Basic→Device ID. User can also set multiple DVRs with the same device ID however this can cause interference if the DVRs are kept close to each other.

2.5 Control with Mouse

2.5.1 Connect Mouse

It supports USB mouse through the ports on the rear panel.

If mouse is not detected or doesn't work, check below steps:

1. Make sure the mouse is plugged in the USB mouse port not the USB port on the front panel

2. Change a mouse to try

2.5.2 Use Mouse

In live:

Double-click left button on one camera to be full screen display. Double-click again to return to the previous screen display.

Click right button to reveal the control menu at the bottom of the screen. Click right to hide the control bar.

In setup:

Click to enter a particular option. Right click to cancel the option or to return to the previous menu.

In order to input a value in a particular screen, move cursor to the input box and click. An input window will appear as Fig 2-7. It supports digits, alphabets and symbols as inputs. Click 'Shift' to input Capital letters and symbols; Click Shift again to return.

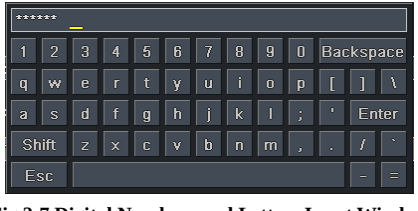


Fig 2-7 Digital Numbers and Letters Input Window

Users can change some value by the wheel, such as time. Move cursor onto the value, and roll the wheel when the value blinks.
It supports mouse drag. I.e. Set motion detection area: click customized, hold left button and drag to set motion detection area. Set schedule, hold left button and drag to set schedule time

In playback:

Click left button to choose the options. Click right button to return to live mode.

In backup:

Click left button to choose the options. Click right button to return to previous picture.

In PTZ control:

Click left button to choose the buttons to control the PTZ. Click right button to return to live.

Notice: *Mouse is the default tool in all the operation below unless Exceptional indication*

3 Basic Function Instruction

3.1 Startup & Shutdown

Please make sure all the connections are done properly before you power on the unit. Proper startup and shutdown are crucial to expanding the life of your DVR.

3.1.1 Startup

Step1: Connect with the source power.

Step2: The device will boot and the power LED would turn blue.

Step3 A WIZZARD window will pop up and show some information about time zone , time setup , network configuration, record configuration and disk management. User can setup here and refer to the concrete setup steps from the corresponding chapters. If users don't want to setup Wizard, please click Exit button to exit.

Notice: *This serial device can only display menu on VGA/HDMI monitor or BNC monitor at one time. If there is live image display without menu display, please check up whether other device has menu display firstly, or long press ESC/Stop key to wait for login dialog box to appear. Long press ESC/Stop key can switch the output between BNC and VGA/HDMI.*

3.1.2 Shutdown

You can shut down the device by using IR remote controller and mouse.

By IR remote controller:

Step1: Press Power button. This will take you to see a shutdown window. The unit will shut down by clicking "OK" button.

Step2: Disconnect the power.

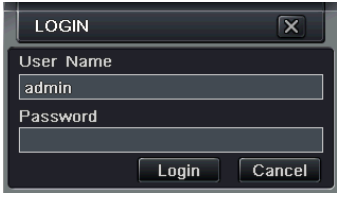
By mouse:

Step1: Enter into Menu and select "Shut Down" icon. This will let you see a shutdown window.

Step2: Click OK. Then the unit will power off after a while.
Step3: Disconnect the power.

3.2 Login

User can login and logout the DVR system. User cannot do any other operations except changing the multi-screen display once logout.



***Notice**: The default user name and password is "admin" and 123456"*
For complete operational steps for changing password, adding or deleting users. Please refer to section 4.7 User Management Configuration.

Fig 3-1 Login

3.3 Live Preview

Fig 3-2 Live Preview

Symbol	Meaning
Green	Manual record
Yellow	Motion detection record
Red	Sensor Alarm record
Blue	Schedule record

3.4 Live Playback

Click Play button to playback the record. Refer to Figure3-3. User can do complete operation by clicking the buttons on screen.

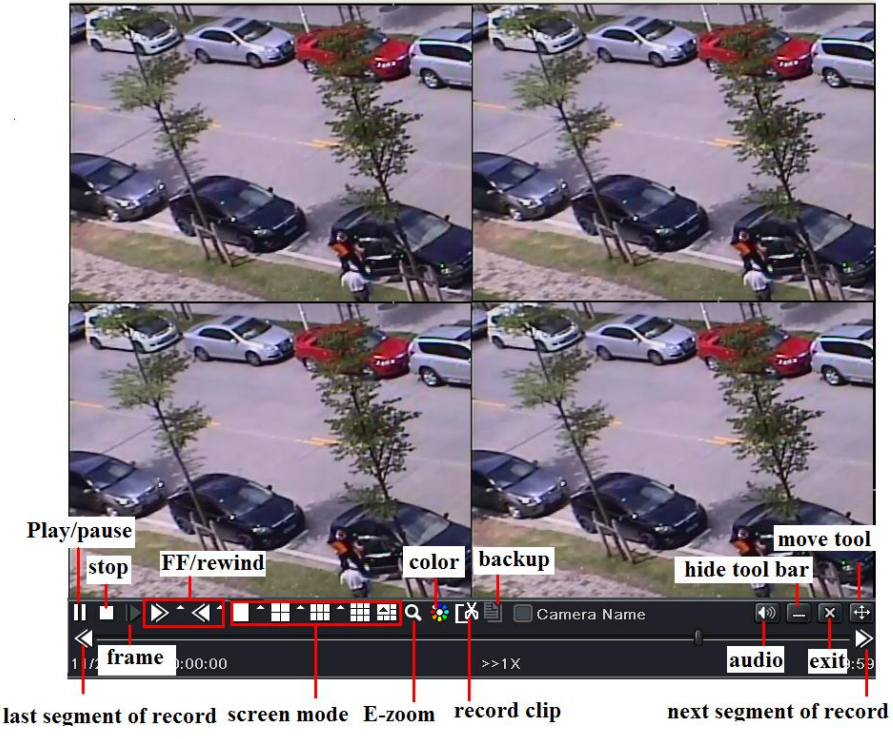


Fig 3-3 Live Playback

4 Main Menu Setup Guide

Right click or press ESC button on the front panel to display the control bar on the bottom of the screen. Refer to Fig 4-1:

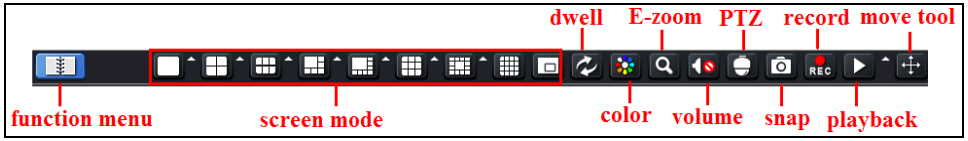


Fig 4-1 Main Menu Toolbar

Click the icon beside the screen mode to display a channel selection box. 6/8/13 channels can realize single channel big screen. Images can drag to any place to display in the live interface. Click the icon beside the playback icon to select the time to playback. For example, if 2 minutes is selected and then click playback button, it will start to playback from the past 2 minutes.

- **PIP**: Choose a single channel and then right click to show the menu bar . Then a PIP button will display. Now clicking this button and choosing another single channel can realize the effect of picture in picture.
- **Dwell**: Dwell means to display live images from different cameras in a sequence. The images may be displayed as a single channel or in a grid fashion from different cameras. Dwell mode is enabled only when the chosen display mode is not able to display all the available cameras.
- **Color**: If this button is enabled, user can adjust the color of live pictures.
- **E-Zoom:** Single channel large screen electronic amplification.
- **Volume:** Enable sound.
- **PTZ:** Click the PTZ button to control rotation position, speed and auto scan of the PTZ connected to the IP camera.
- **Snap:** Use this button to take snapshots. These pictures will automatically be saved in the HDD.
- **Record:** Click this button to start or stop recording.
- **Playback:** Click this button to playback the recorded files.

Click Menu button to pop up a window as Fig 4-2; You can also press MENU button on the front panel or operate with remote

controller to display the main menu. Clicking Setup icon will pop up the configuration menu:

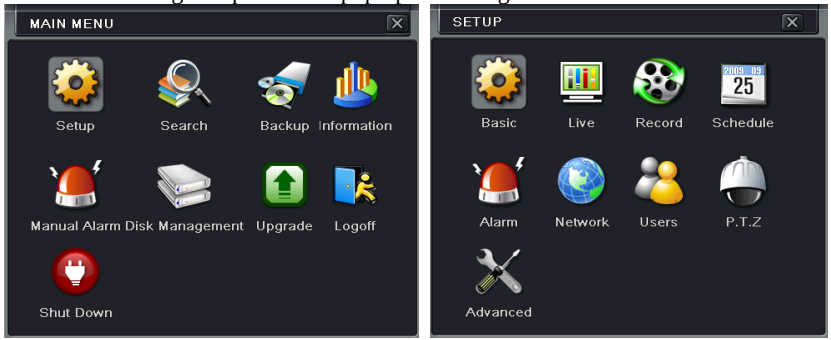


Fig 4-2 Main Menu

4.1 Basic Configuration

Basic configuration includes three sub menus: system, date & time and DST.

4.1.1 System

Step1: Enter into Menu→Setup→Basic→System tab (please refer to Fig 4-3).

Step2: In this tab user can setup the device name, device ID, video format, max network users, VGA resolution and language. The definitions for every parameters display as below:

Device name: The name of the device as it may display on the client end or CMS, this would help users to recognize the device remotely.

Device ID: This ID is used to map the DVR with IR remote controller and speed dome cameras.

Video format: Two modes: PAL and NTSC. User can select the video format according to that of camera.

Fig 4-3 Basic Configuration-Basic

Password check: If this option is enabled, the user would need to input the user name and the password for performing corresponding operations.
Show time: If selected, the current time will be displayed during live monitoring.
Show wizard: If selected, the GUI would launch the startup wizard on every boot, allowing the user to do basic setup.
Max network uses: To set the max number of concurrent user logins in the DVR.
VGA resolution: The resolution of live display interface, range from: VGA800*600, VGA1280*1024, HDMI and CVBS.
Note: *Switching between VGA and CVBS will change the menu output mode. Please connect to relevant monitor.*
Language: setup the menu language.
Note: *After changing the language and video output, the device needs to login again.*
Logout After (Minutes): A user can setup the screen interval time (30s, 60s, 180s, 300s). If there is no any operation within the setting period, the device will auto logout and return to login interface.
No Image When Logout: If this item is selected, there will be no image showing when logout.

4.1.2 Date & Time

Step1: Enter into Menu→Setup→Basic→Date & Time tab. Refer to Fig 4-4.
Step2: Set the date format, time format, time zone in this tab; checkmark "sync time with NTP server" to refresh NTP server date; user can also adjust system date manually
Step3: Click "Default" button to restore default setting; click "Apply" button to save the setting; click "Exit" button to exit the current interface.

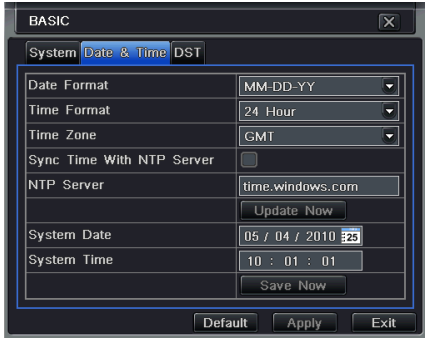


Fig 4-4 Basic Configuration-Date & Time

4.1.3 DST

Step1: Enter into Menu→Setup→Basic →DST tab (please refer to Fig 4-5).
Step2: In this tab, enable daylight saving time, time offset, mode, start & end month/week/date, etc.

Step3: Click “Default” button to restore default setting; click “Apply” button to save the setting; click “Exit” button to exit the current interface.

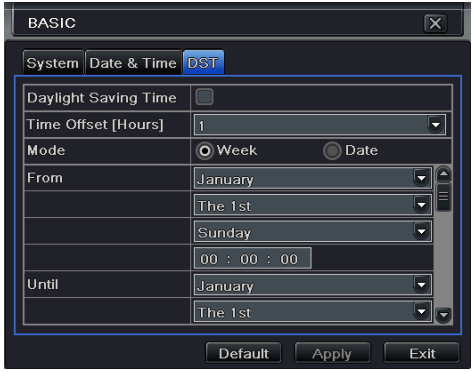


Fig 4-5 Basic Configuration-DST

4.2 Live Configuration

Live configuration includes four submenus: live, main monitor, spot and mask.

4.2.1 Live

In this interface, user can setup camera name, adjust colors: brightness, hue, saturation and contrast.
Step1: Enter into Menu→Setup→Live→Live tab. Refer to Fig 4-6:
Note: A soft keyboard will pop up by clicking the camera name. User can self-define the camera name.
Step2: For a particular camera/channel setting, please click “Setting” button to see a window as Fig 4-7:
Step3: In this interface, user can adjust brightness, hue, saturation and contrast in live; click “Default” button to restore default setting,

click “OK” button to save the setting.

Step4: Select “All” to setup all channels with the same parameters.

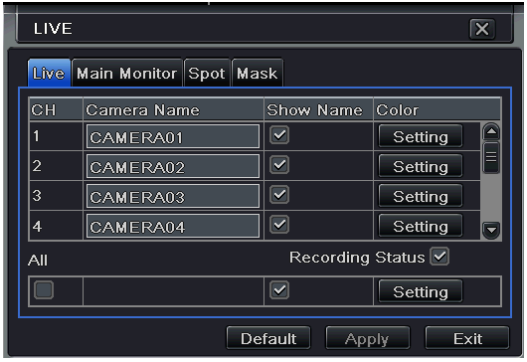


Fig 4-6 Live Configuration→Live

Fig 4-7 Live-Color Adjustment

4.2.2 Main Monitor

Step1: Enter into Menu→Setup→Live→Main Monitor tab. Refer to Fig 4-8:

Step2: Select split mode: 1×1、2×2、2×3、3×3、4×4 and map the channel

Step3: Set the dwell time.

Step4: Select the split mode and then setup current picture group. Click button to setup the previous channel groups of dwell picture.

Click button to set the latter channel groups of dwell picture.

Step5: Click “Default” to restore default setting; click “Apply” to save the setting; click “Exit” to exit the current interface.

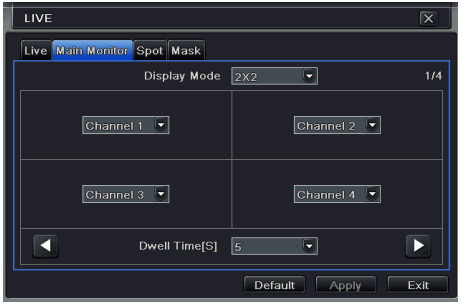


Fig 4-8 Live Configuration-Main Monitor

4.2.3 Spot

Step1: Enter into Menu→Setup→Live→Spot tab. Refer to Fig 4-9:
Step2: Select split mode: 1×1 and map the channel
Step3: Set the dwell time.
Step4: Select the split mode and then setup current picture group. Click button to setup the previous channel groups of dwell picture. Click button to set the latter channel groups of dwell picture.
Step5: Click "Apply" button to save the setting; click "Exit" button to exit the current interface.

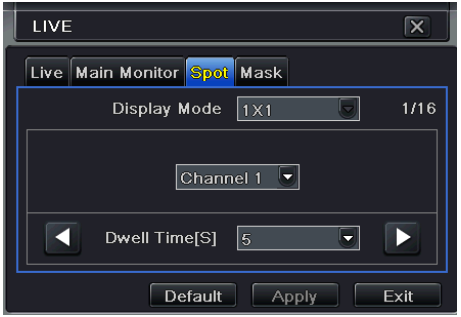


Fig 4-9 Live Configuration-Spot

4.2.4 Mask

User can setup private mask area on the live image picture, max threes areas.
Setup mask area: Click Setting button, enter into live image to press left mouse and drag mouse to set mask area. Please refer to the left picture. Right click to exit. Click Apply button to save settings.
Delete mask area: Select a certain mask area and double click to delete that mask area. Then click Apply button to save the setting.
Each channel is allowed to set 3 mask areas.

Fig 4-10 Live Configuration-Mask

Setup Mask Area

Live Image Mask Area

4.3 Record Configuration

Record configuration includes six sub menus: enable, record bit rate, time, recycle record, stamp and snap.

4.3.1 Enable

Step1: Enter into Menu→Setup→Record→Enable tab. Refer to Fig 4-11:

Fig 4-11 Record Configuration-Enable

Parameter	Meaning
Record	To enable/disable recording for the channel
Audio	To enable/disable audio recording for the channel

Step2: Checkmark record and audio.
Step3: Select All to setup the same settings for all channels.

4.3.2 Record Stream

Step1: Enter into Menu→Setup→Record →Record Bitrate tab. Refer to Fig 4-12:
Step2: Setup rate, resolution, quality, encode and max bit stream.
Step3: Select "All" to set the same settings for all channels.
Step4: Click "Default" button to restore default setting; click "Apply" button to save the setting; click "Exit" button to exit the current interface.
Note: *If the rate value set is over high the maximum resources of the device, the value will be adjusted automatically.*

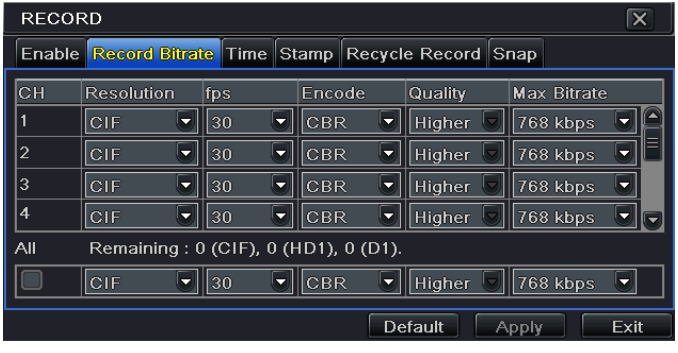


Fig 4-12 Record Configuration-Record Bit rate

Parameter	Meaning
Rate	Range from: 1-30（NTSC）1-25(PAL)
Resolution	Support CIF, HD1 and D1
Quality	The higher the value is, the clearer the recorded image is. Six options: lowest, lower, low, medium, higher and highest.
Encode	VBR and CBR
Max bit stream	Range from: 256 Kbps~2 Mbps

4.3.3 Time

Step1: Enter into Menu→Setup→Record→ Time tab. Refer to Fig 4-13:

Pre-alarm record time: The record time prior to actual triggering of an alarm i.e. record time before motion detection or a sensor alarm was triggered.

Post-alarm record: Set the post recording time after the alarm is finished, five options: 10s, 15s, 20s, 30s, 60s, 120s, 180s and 300s.

Expire time: The time till which the records would be retained. If the set date is overdue, the recorded files will be deleted automatically.

Step2: Select "All" to setup all channels with the same parameters.

Step3: Click "Apply" to save the setting; click "Exit" to exit the current interface.

Fig 4-13 Record Configuration-Time

4.3.4 Stamp

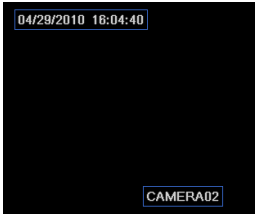
Stamp： This provides an option to enable or disable the Camera Name and the Time stamp on the video. The user can also choose a position for the stamp on the screen**.**

Step1: Enter into Menu→Setup→Record→ Stamp tab. Refer to Fig 4-14:

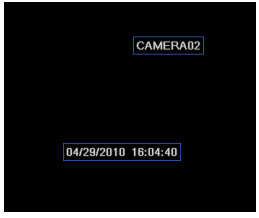
Step2: Checkmark camera name, time stamp; click Setting button. User can use cursor to drag the camera name and time stamp in random positions, referring to below Figures:

Step3: Select "All" to setup all channels with the same parameters.

Fig 4-14 Record Configuration-Stamp



Before Drag



After Drag

4.3.5 Recycle Record

This option is used to recycle the HDD space once it is full. If enabled, the system will automatically delete the old records (FIFO, recycling space) and recycle the space if it is completely utilized. The setting steps are as follows:

Step1: Enter into Menu→Setup→Record→Recycle Record tab.

Step2: Checkmark the 'recycle record' box to activate the auto recycling.

Step3: Click "Apply" button to save the setting; click "Exit" button to exit the current interface.

Note: If the option is disabled or not selected, the DVR would stop recording once the HDD is full.

4.3.6 Snap

In this tab, user can set up Resolution, quality, snap interval, snap number.

4.4 Schedule Configuration

Schedule configuration includes three sub menus: schedule, motion and alarm.

4.4.1 Schedule

This tab allows defining schedule for normal recording for seven days of a week, 24 hours of a day. Every row denotes an hourly timeline for a day. Click the grid to do relevant setup. A highlighted area denotes selected timeline.

Step1: Enter into Menu→Setup→Schedule tab. Refer to Fig 4-15.

Step2: Select channel and double-click to pop up a window as Fig 4-16. Now you can edit week schedule:

Click " " button to add a certain day schedule; click " " button to delete the selected schedule;

Copy: Copy the specified schedule to other dates.

If you want to copy the schedule settings of a channel to other or all channels, you just need to select channel and click "Copy" button.

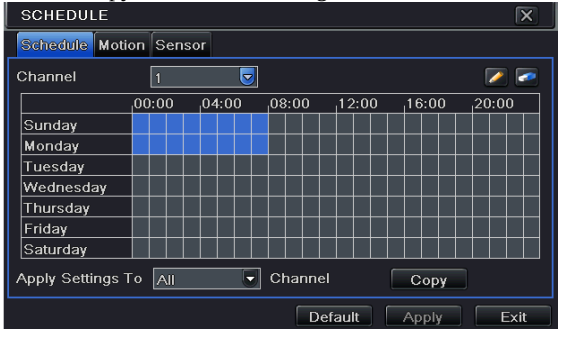


Fig 4-15 Schedule Configuration-Schedule

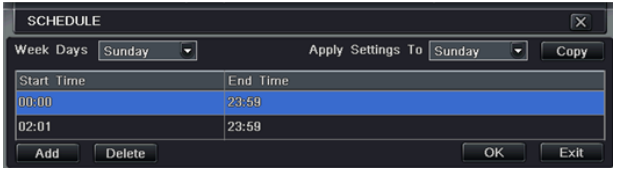


Fig 4-16 Schedule-Week Schedule

4.4.2 Motion

This tab allows to setup schedule for motion based recording.

Step1: Enter into Menu→Setup→Schedule→Motion tab. Refer to Fig 4-17:

Step2: The setup steps for schedule for motion based recording are similar to normal schedule setup. You can refer to 4.4.1 Schedule for details.

Note: The default schedule of motion based recording is 24x7, that is, the color of schedule settings interface is dark blue. This enables motion based recording for 24x7. If you want to activate motion based recording, you must enable motion alarm and setup schedule for motion alarm (Refer to Chapter 4.5.2 Motion Alarm for more details).

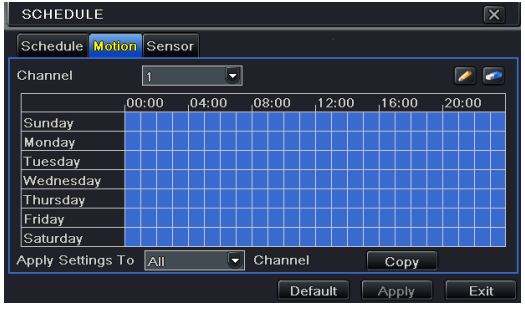


Fig 4-17 Schedule Configuration-Motion

4.4.3 Sensor

This tab allows to setup schedule for sensor based recording.

Step1: Enter into Menu→Setup→Schedule→Sensor tab. Refer to Fig 4-18:

Step2: The setup steps for schedule for sensor based recording are similar to normal schedule setup (Refer to 4.4.1 Schedule for details).

Note: The default schedule of sensor based recording is 24x7, that is, the color of schedule settings interface is dark blue. This enables sensor based recording for 24x7. If you want to activate sensor based recording, you must enable sensor alarm and setup schedule for sensor alarm (Refer to Chapter 4.5.1 for more details).

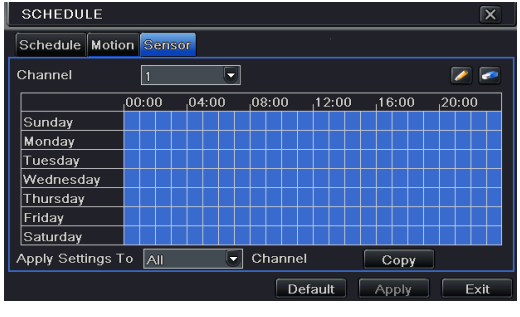


Fig 4-18 schedule configuration-sensor

4.5 Alarm configuration

Alarm configuration includes five sub menus: sensor, motion, video loss, other alarm and alarm out.

4.5.1 Sensor

Sensor includes three sub menus: basic, alarm handling and schedule.

Operate the following steps to configure sensor alarm:

Step1: Enter into Menu→Setup→Alarm→Sensor→Basic interface. Refer to Fig 4-19:

Step2: Enable channels by checking the checkboxes beside the desired channels.

Step 3: Set the alarm type according to triggered alarm type. Two option: NO and NC.

Step4: Click "Apply" button to save settings.

Step5: Enter into Alarm Handling tab. Refer to Fig 4-20.

Fig 4-19 Alarm Configuration-Sensor-Basic

Select hold time and then click Setting button. A dialog box will pop-up as Fig 4-21:

Fig 4-20 Alarm Configuration-Sensor-Alarm Handling

Fig 4-21 Alarm Handling-Trigger

Step 6: Enter into alarm tab to select the options to handle alarm.

Buzzer: If selected, the local inbuilt buzzer would be activated on an alarm.

Full screen alarm: If selected, there will pop up the chosen channel on the monitor on an alarm trigger.

To alarm out: If selected, this would trigger the external relay output on detecting a sensor based alarm.

Email: If you select this option, the DVR will send an email alert to the preconfigured email address in case of a sensor based alarm from the particular input.

Snap: If selected, the system will snap images of the checked channels on an alarm and save them in the HDD automatically.

Step 7**:** Enter into To Record tab. Select recoding channels. It would be recorded in case of an alarm. Click OK button to save the setting.

Step 8: Enter into To PTZ tab. Set preset, cruise and track options for a PTZ in case of a sensor based alarm. Single or multiple PTZ units could be programmed to perform this function on the same alarm.

Step9: Enter into Schedule tab. Refer to Fig 4-22. The setup steps for schedule for sensor based alarm are similar to normal schedule setup. You can refer to Chapter 4.4.1 Schedule for more details. This step is very important for sensor alarm. Even if you have enabled the sensor alarm for all channels and setup the trigger, you will not see the result of sensor alarm if no schedule is added.

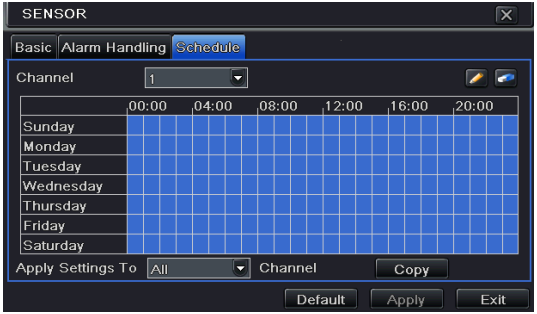


Fig 4-22 Sensor-Schedule

If you have set the schedule for senor based recording in the same timeline, recordings can also be triggered.

4.5.2 Motion

Motion includes two sub menus: motion and schedule. The steps to set up motion alarm are as follows

Step1: Enter into Menu→Setup→Alarm→Motion tab. Refer to Fig 4-23:

Step2: Enable motion alarm, set alarm hold time which refers to the time till which the system will wait for further detection of motion. Eg. If the holding time is set to 10 seconds, once the system detects a motion, it will go into alarm but would not detect any other motion alarm (specific to channel) until 30 seconds. If there is other motion detected during this period, it is considered it as continuous movement; otherwise it will be considered as a single motion.

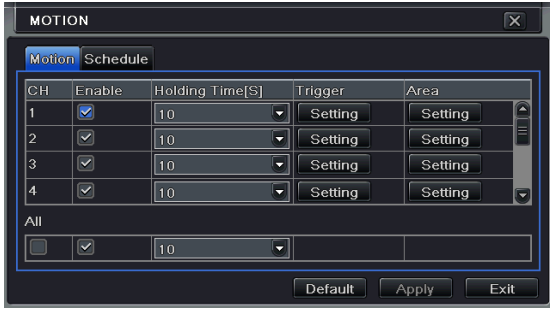


Fig 4-23 Alarm Configuration-Motion

Step3: The setup steps of motion trigger are similar to 'Alarm Handling'. You can refer to Chapter 4.5.1 Sensor →Alarm Handling for more details.
Step4: Click "Setting" button under the Area to display the following picture as shown in Fig 4-24:
Step5: In the Area tab, you can drag slide bar to set the sensitivity value (1-8). The higher the value is the more sensitive it is to motion. Since the sensitivity is influenced by color and time (day or night), you can adjust its value according to the practical conditions. Left click the grid and drag to delete area. Drag again to add area. Click icon to set the whole area as detection area. Click icon to clear the set detection area. Click icon to test the sensitivity as per the local conditions. Once motion is sensed, it displays a figure icon. Click icon to save the setting. Click icon, exit the current interface.

Fig 4-24 Motion-Area

Note: Prior to setting motion detection field it is recommended that you click icon to clear the existing field and set afresh.

Step6: Select "All" to setup all channels with the same parameters.
Step7: Click "Apply" button to save the setting.
Step 8: Enter into Schedule tab. The setup steps for schedule for motion based alarm are similar to normal schedule setup; you can refer to 4.4.1 Schedule for details.
This step is very important for motion based alarm. Even if you have enabled the motion based alarm for all channels and setup the trigger, you will not see the result of motion based alarm if no schedule is added.
If you have set the schedule for senor based recording in the same timeline, recordings can also be triggered.

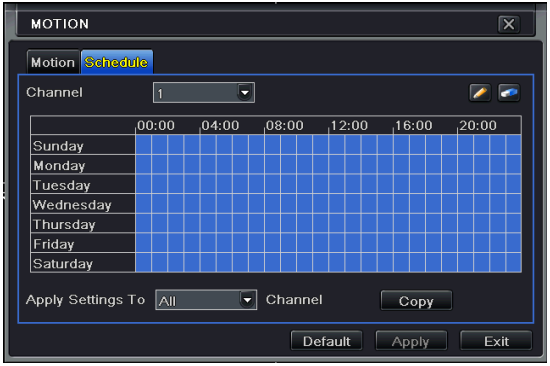


Fig 4-25 Motion-Schedule

4.5.3 Video Loss

Step1: Enter into Menu→Setup→Alarm→Video Loss tab. Refer to Fig 4-26:
Step2: The setup steps of video loss trigger are familiar with alarm handling; user can refer to Chapter 4.5.1 Sensor →alarm handling for more details.
Step3: Select "All" to setup all channels with the same parameters.
Step4: Click "Apply" button to save the setting; click "Exit" button to exit the current interface.

Fig 4-26 Video Loss

4.5.4 Other Alarm

This tab gives a choice to configure alarm for Disk Full, IP Conflict, the Disconnect event, Disk Attenuation or Disk Lost.
Step1: Enter into Menu→Setup→Alarm→Other Alarm tab. Refer to Fig 4-27:
Step 2: Use the dropdown menu and select the event or the alarm.
Step 3: Check the required trigger options.
If the selected event is "Disk Full", then use the drop down box for "Disk Shortage Alarm" to choose a threshold value for remaining HDD space. If the threshold value is reached, the system will trigger the Disk Full Alarm.
Click "Apply" to save settings; Click "Exit" to exit the current interface.

Fig4-27 Other Alarm

4.5.5 Alarm Out

Alarm out includes three sub menus: alarm out, schedule and buzzer

To setup alarm out:

Step 1: Enter into Menu→Setup→Alarm out tab. Refer to Fig 4-28. Input relay name and hold time.

Step 2: Select the Schedule tab. This will bring up the schedule setup tab. The setup steps for schedule for alarm out are similar to normal schedule setup; you can refer to 4.4.1 Schedule for details.

This step is very important for alarm out. Even if you have enabled alarm out in the motion based alarm or sensor based alarm, you will not see the result of alarm out if no schedule is added here.

Fig 4-28 Alarm Out

Buzzer

It is an inbuilt alarm output device. To setup Buzzer:

Step1: Enter into Menu→Setup→Alarm out →Buzzer tab;

Step2: Checkmark Buzzer and set buzzer alarm hold time. This would trigger the buzzer when the system is in alarm.

4.6 Network Configuration

Network configuration includes five submenus: network, sub stream, Email, server and other settings.

4.6.1 Network

Step 1: Enter into Menu→Setup→Network tab. Refer to Fig 4-29:

Step 2: HTTP port: the default value is 80. If the value changed, user needs to add the port number when typing IP address in IE address blank .i.e. set HTTP port to 82, IP address: http://192.168.0.25, user needs to input that address: http://192.168.0.25:82 into IE browser

Server port: Communication port.

Step 3: Select the way to connect Internet. If you have a DHCP server running and would like your DVR to automatically obtain an IP address and other network settings from that server, check the checkbox beside "Obtain an IP address automatically". Then the device will distribute IP address, subnet mask, and gateway IP and DNS server. If you want to configure your own settings, please input the IP address, Subnet mask, Gateway DNS server manually. You can also check the PPOE checkbox to enable this feature and then enter username and password. Once the setup is completed, your DVR will automatically dial up into your network.

Step 4: No matter what kinds of way to connect internet, you should test the effectiveness of the network by clicking “Test” button after you setup the network.

Step 5: If the network is well connected, please click “Apply” button to save settings.

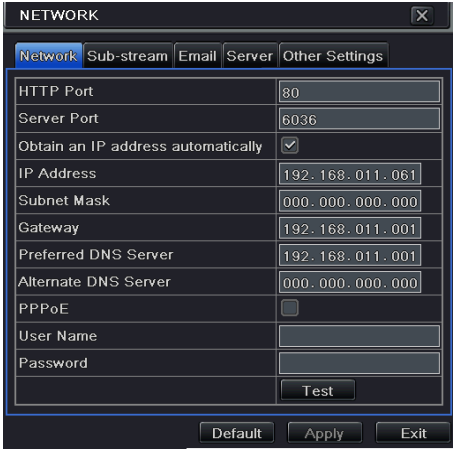


Fig 4-29 Network Configuration-Network

4.6.2 Sub Stream

Step 1: Enter into Menu→Setup→Network→Sub Stream tab. Refer to Fig 4-30:

Step 2: Select fps, resolution, quality, encode and max bit rate

Step 3: Select “All” to setup all channels with the same parameters.

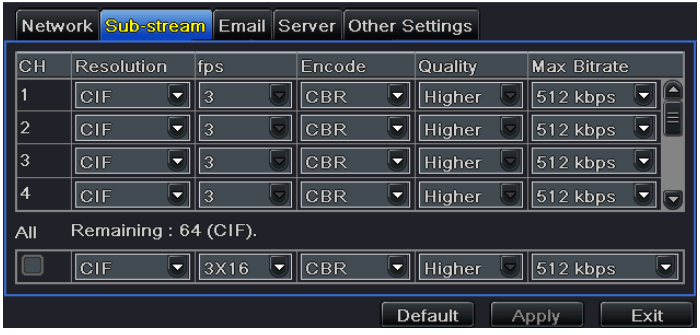


Fig 4-30 Network Configuration-Sub Stream

Parameter	Meaning
FPS	Range from: 1-25 (PAL)/1-30(NTSC)
Resolution	Support CIF
Quality	The quality of the clients' image. The higher the value is, the clearer the record image. Six options: lowest, lower, low, medium, higher and highest.
Encode	VBR and CBR
Max bit rate	Range from: 32 Kbps~768 Kbps

4.6.3 Email

Step 1: Enter into Menu→Setup→Network→Email tab. Refer to Fig 4-31:

SMTP Server/Port: The name and port number of SMTP server. After selecting "This server requires a secure connection (SSL)", user can setup mail servers (such as Gmail) according to actual needs.

Send address/password: Sender's email address/password

Receive address: Receiver's email address. Here user can add at least three mail addresses.

Click TEST button to test the validity of the mailbox.

Attaching image: If selected, the system will attach images when sending the emails.

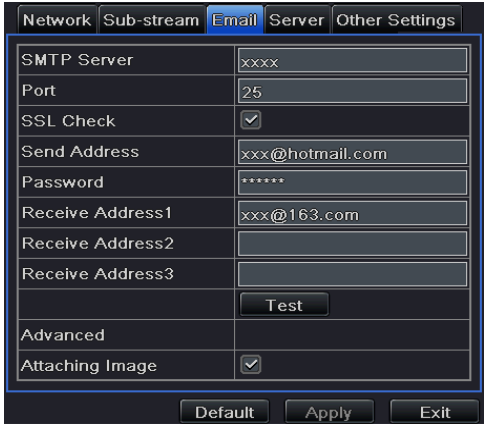


Fig 4-31 Network Configuration-Email

4.6.4 Server

This function is mainly used for connecting ECMS.

Step 1: In the server tab, select “enable” as shown in the Fig 4-32.

Step 2: Check the IP address and port of the transfer media server in the ECMS. The default server port for auto report is 2009. If it is modified, please enter into the transfer media interface to check.

Step 3: Enable the auto report in the ECMS when adding a new device. Then input the remaining information of the device in the ECMS. After that, the system will auto allot a Device ID. Please check it in the ECMS.

Step 4: Input the above-mentioned server IP, server port and device ID in the server interface .Then click “Apply” button to save settings. Now, the ECMS system will automatically connect this device.

Fig 4-32 Network Configuration-Server

4.6.5 Other Settings

Step 1: Enable DDNS server: user needs to input user name, password and host domain name of the registered website, click TEST to test the effectiveness of the relevant information.

Step 2: Click “Apply” button to save the setting; click “Exit” button to exit the current interface.

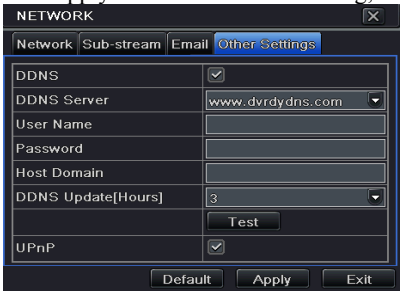


Fig 4-33 Network Configuration-Other Settings

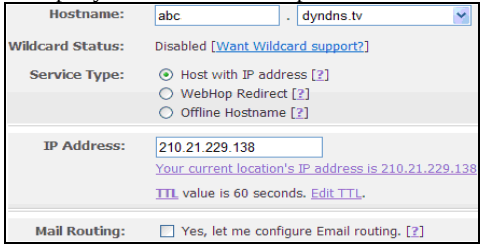
Note: The domain name server that selected by user is a banding domain name of DVR. User should logon the website which provided by the server supplier to register a user name and password firstly, and then apply for a domain name on line. After the successful application, user can access the server from the IE client by inputting that domain name.

- How to apply for a domain name?

Here we take www.dyndns.com for example.

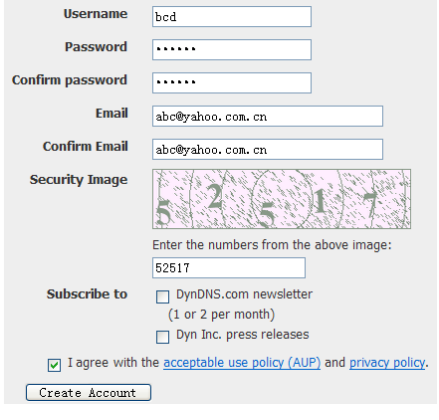
Step 1: Input www.dyndns.com in the IE address bar. Click ”Free Trial of DynDNS Pro”→”Start the trial” to register.

Step 2: Input hostname, select service type and input your IP address. The picture is shown as follows:



Step 3: Click “Add to cart”. Then Dynamic DNS Hosts dialog box will be displayed.

Step 4: Create user account. For example, the username is “bcd”, password is “123456”.



Click" Create Account" button to create user account. After that, you shall provide your card number, card expiration and security code as well as billing address. Finally click "sign up for trial" button.

Now, according to the domain name registration of "DDNS"，the domain name for DVR is "abc.dyndns.tv", username is "bcd" and password is "123456"

Connect DVR via network:
Step 1: Enter into Main menu→Network→other settings, checkmark DDNS, select "Dyndns" at the DDNS Sever pull down list box and input user name and password.
Step 2: Login IE browser and input registered domain name "http://www.abc.dyndns.tv" to connect DVR.

Enable UPnP: User may select UPnP and then enable UPnP function in the user's router. Then there is no need for user to forward its IP address and port in router in connection of internet.

Definitions and descriptions of network configuration:

DDNS server	
DDNS server	Website provided by dynamic domain name supplier. The optional: www.meibu.com ，www.dyndns.com, www.no-ip.com and mintdns type.
User name	User name for log in the website of domain name supplier
Password	Password for log in the website of domain name supplier
Host domain	The domain name user registered at the supplier's website.
Update interval	The interval time of upgrading DVR IP address

4.7 User management Configuration

This tab allows you to add normal or advanced users. To add user and setup user authority:

Step 1: Enter into Menu→Setup→User management configuration. Refer to Fig 4-34:
Step 2: Click Add button to display a dialog box as Fig 4-35:
Step 3: In General tab, input username, password and select user type. You can also check 'Binding PC MAC Address' and input this address.
Step 4: Click 'OK' button to save settings.
Note: When the default value of binding PC MAC address is 0, the user is not bound with the specified computer. If the bind option is used, the user would be able to log into the DVR only through the specific computer (carrying the MAC address).

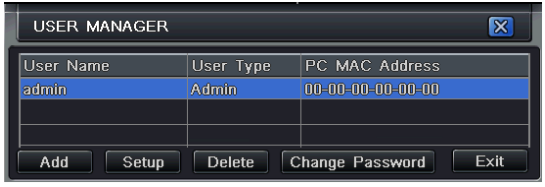


Fig 4-34 User Management Configuration

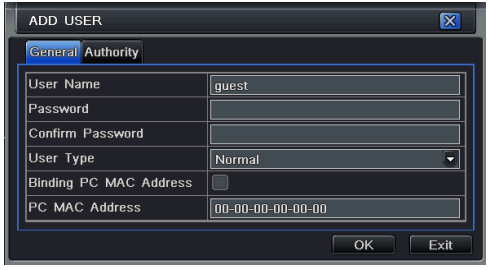


Fig 4-35 Add-General

Step 5: Select Authority tab and then assign the operation rights for particular user. Refer to Fig 4-36.
If you want to delete the user, please select the user you want to delete in the user list box and then click "Delete" button.
If you want to modify the user, please select the user you want to modify in the user list box and then click "Setup" button to modify its general information and authority.
If you want to change password of a user, please select the user in the user list box and then click "Change Password" button.

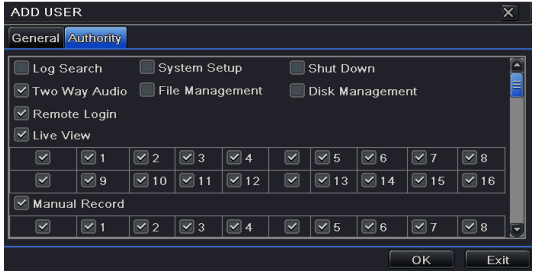


Fig 4-36 Add User-Authority

4.8 P.T.Z Configuration

P.T.Z configuration includes two submenus: serial port and advanced settings.

Serial port settings are as follows:

Step 1: Enter into Menu→Setup → P.T.Z →Serial port tab. Refer to Fig 4-37:

Step 2: Select “enable” and setup the value of address, baud rate and protocol according to the settings of the speed dome.

Step 3: Configure all channels with the same parameters by selecting the “All” box and then doing the relevant setup.

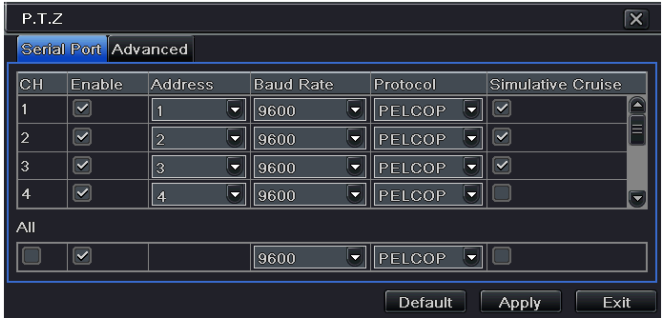


Fig 4-37 P.T.Z Configuration-Serial Port

Definitions and descriptions of network stream:

Parameter	Meaning
Address	The address of the PTZ device
Baud rate	Baud rate of the PTZ device. Range form: 110, 300, 600, 1200, 2400, 4800, 9600, 19200, 34800, 57600, 115200, 230400, 460800, 921600.
Protocol	Communication protocol of the PTZ device. Range from: NULL, PELCOP, PELCOD, LILIN, MINKING, NEON, STAR, VIDO, DSCP, VISCA, SAMSUNG, RM110, HY, N-control.
Simulative Cruise	If enabled, no matter whether the PTZ device supports cruise or not, the presets will cruise.

Advance settings are as follows:

Step 1: Enter into Menu→Setup→ P.T.Z →Advanced tab. Refer to Fig 4-38:

Step 2: In the Advanced tab, click preset "Setting" button to see a dialog box as Fig 4-39:

Fig 4-38 P.T.Z Configuration-Advanced

Fig 4-39 Advanced-Preset Setting

Step 3: In the preset setting tab, while clicking Setting button, a dialog will pop-up as Fig 4-40:

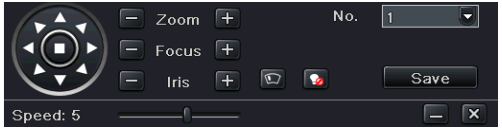


Fig 4-40 Preset Setting-Setting

- User can control the dome by rotating up, down, left, right and adjust the rotating speed zoom, focus and iris of the dome;
- Select the serial number of the preset point. Click button to enable the PTZ wiper and click button to enable the PTZ light.

Note: *Only when the PTZ supports wiper and light, can these two functional buttons take effect. At the same time these two buttons are only available when PELCOP or PELCOD is selected.*

- Click Save button to save the settings, click icon to hide the tool bar, right-key can remerge it; click icon to exit the current interface.
- In the preset tab, click OK button to save the setting; click Exit button to exit the current interface.

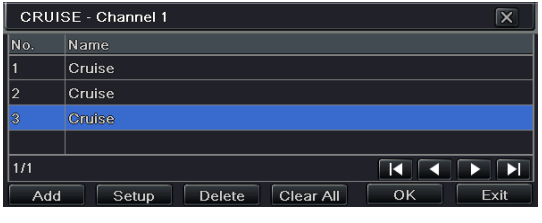


Fig 4-41 Cruise Setting

Step4: In the Advanced tab, while clicking cruise "Setting" button, a dialog box will pop-up as Fig 4-41:
Click Add button to add cruise line in the list box (max 8 cruise line can be added); select a cruise line and click Setup button to see a dialog box as Fig 4-42:

Click Add icon to set the speed and time of preset point; select a preset point and then click Delete icon to delete that preset point; click Modify icon to modify the setting of a preset point. User can click icons to adjust the position of preset point. Click Preview button to preview the cruise line; click OK button to save the setting; click Exit button to exit the current interface.

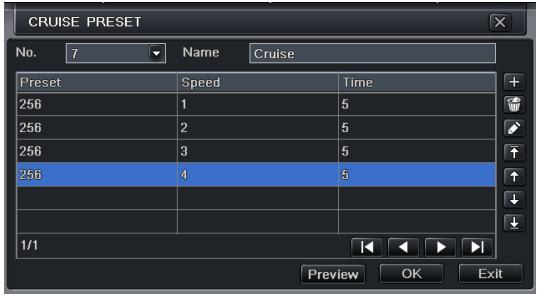


Fig 4-42 Cruise Setting-Modify Cruise Line

- Select a preset point in the cruise line list box. Click Delete button to delete that cruise line; click Clear all button to clear all cruise line from the list box; click OK button to save the setting; click Exit button to exit the current interface.

Step5: In the Advanced tab, while clicking track "Setting" button, a dialog box will pop-up as Fig 4-43:

- User can control the dome by rotating up, down, right, left and can adjust the rotating speed and zoom, focus and iris of the dome; click Start Record button and move the PTZ in the required manner to record by the DVR. Click this button again can stop recording. Click Start track button to play recorded track. Click this button again can stop the playback.
- Click icon to hide the tool bar and right click to view the toolbar again. Click icon to exit the current tab.

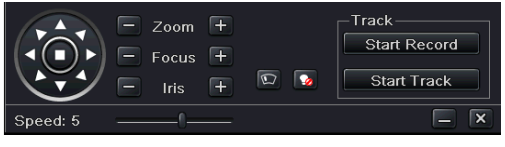


Fig 4-43 Track Setting

Step 6: After the completion of settings, click "Apply" button to save settings.

4.9 Advanced

Advanced configuration includes three submenus: reset, import/export and Block/Allow list.

4.9.1 Reset

Reset all settings the device will reboot.

4.9.2 Import/Export

User can export the data files into mobile storage devices as backup function, and then import specified data files from mobile storage device to DVR.

4.9.3 Block/Allow List

Here authorized user can prohibit computer users within a certain IP address range from accessing DVR or allow computer users within a certain IP address range to access DVR. For example, if an admin don't want computer users within IP address range from 196.168.000.002 to 196.168.000.004 to access the DVR, he can checkmark 'Block list' option, and then input such IP address range. If it is required that computer users within a certain IP address range access DVR, they can checkmark "Allow list option", and then do the required configuration.

Fig 4-44 Block/Allow List

5 Search, Playback and Backup

Search configuration includes four submenus: time search, event search, file management and image.

5.1 Time Search

Step1: Enter into Menu→Search →Time Search tab. Refer to Fig 5-1:

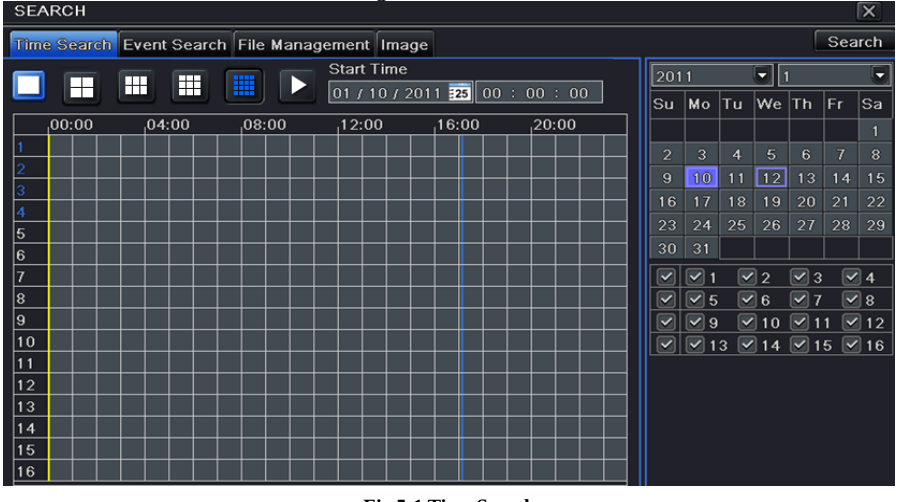
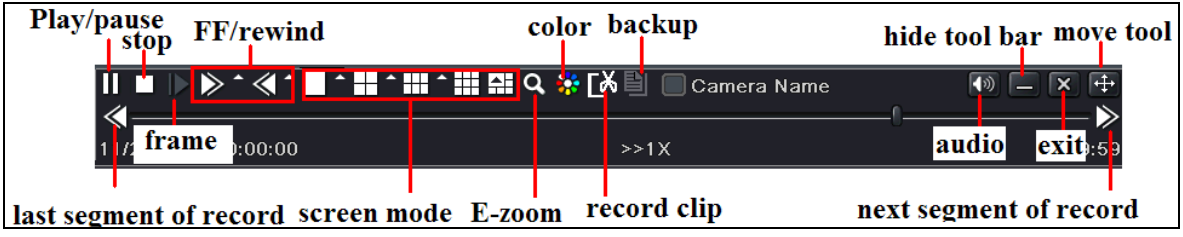


Fig 5-1 Time Search

Step2: Select date and channels on the right hand side and press “Search” button. A date with highlighted borderline indicates presence of data.

Step3: Set the start time by clicking a particular grid or by entering the specific value in the start time field.

Step4: Select the channel display mode and click button to play record. Use the playback toolbar to control the playback.



Playback Buttons

Note: *When the monitor resolution is set to VGA800*600, Part of the time search interface will be hidden. Click the "Expand to" button to expand the whole interface.*

The method of record backup during a certain period in the playback interface:

Select the start time by dragging the slider and click icon. Then select the end time and click this icon again to confirm the record period. Next, click icon to backup the record during this period.

5.2 Event Search

Step1: Enter into Menu→Search →Event Search tab. Refer to Fig 5-2:

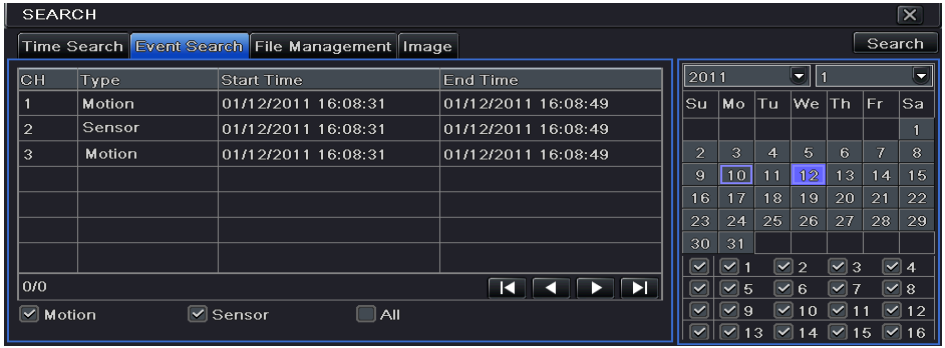


Fig 5-2 Search Configuration-Event Search

Step 2: Select date and channels on the right hand side. A data with highlighted borderline indicates presence of data.
Step 3: Then checkmark Motion, Sensor or All accordingly. You can search for motion based recording and sensor based recording.
Step 4: Press “Search” button to display the searched event information in the event list box.
Step 5: Double click the event item to play the record.

5.3 File Management

Step1: Enter into Menu→Search →File Management tab refer to Fig 5-3:
Step 2: Select date and channels. The date with highlighted borderline indicates presence of data.
Step 3: Press “Search” button to display the searched files in the file list box.
Lock: Select a file and click Lock button to lock this file. Once locked, the file cannot be deleted.
Unlock: Select a locked file and click Lock button to unlock this file
Delete: Select an unlocked file and click Delete button to delete this file.
Step 4: Use “All” button to lock/unlock or delete all files in the file management column.
Step 5: Double click an unlocked item to playback.

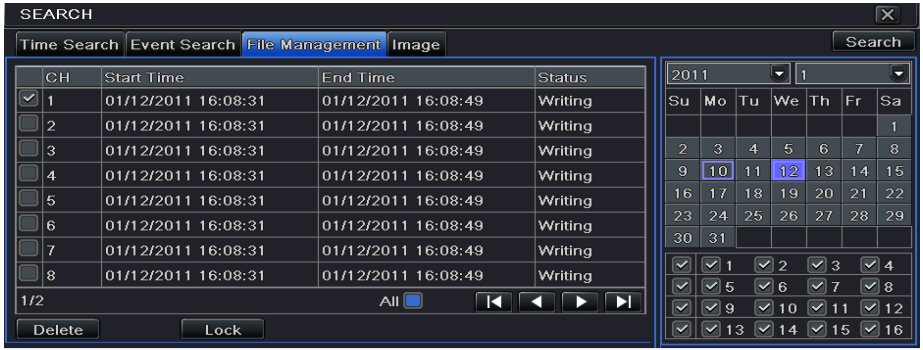


Fig 5-3 Search Configuration-File Management

5.4 Search By Image

Step 1: Enter into Menu→Search→Image tab.

Step 2: Select data and channels on the right hand side.

Step 3: Press "Search" button to search for a recorded image.

Step 4: Once an alarm image has been identified, the user can double click the image to play the recording.

You can lock the image by clicking "Lock" button. Click "Save" button to copy the image on the HDD. Click "Save All" to copy all images on the HDD.

Note: In order to take images on alarm, the snapshot feature should be activated in "Alarm Handling" for different kind of alarms. Please refer to 4.5 Alarm Configuration for details.

5.5 Backup

This unit supports backup by USB Flash. User also can make backup by IE browser via internet. Refer to 7.3.2 Remote backup.

Step1: Enter into Menu→Backup tab. Refer to Fig 5-4:

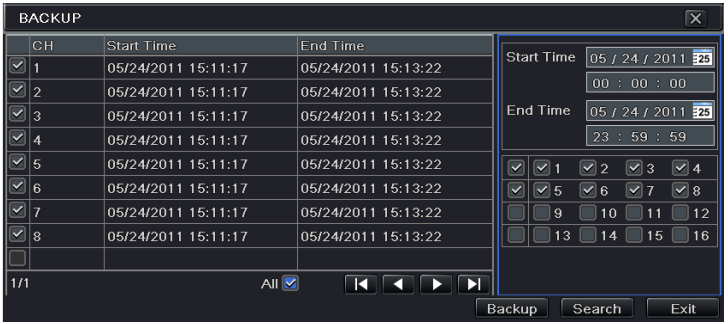


Fig 5-4 Backup Configuration

Step2: Set the start & end time, select channels and click Search button to display the searched data in the data backup list box

Step3: Select a required file or checkmark "All" to select all data files. Click Backup button to display Backup information window.

Step4: In the backup information tab, user can check the relevant options for backing up files. These options include storage Media, backup player and save file type. Then click Start button to start backup.

Note: If the backup files are saved in DVR format, please check backup player. Only this player can play these files in DVR format. If the backup files are saved in AVI format, you can play these files with common media player.

6 Manage DVR

6.1 Check System Information

Check system information includes five submenus: system, event, log, network and online user.

6.1.1 System Information

In this tab, user can check the hardware version, MCU version, kernel version, device ID, etc.

6.1.2 Event Information

In this tab, you can search for events like motion, sensor and video loss. The utility provides an interface to have a date based and a channel based search. This report can further be saved on a USB flash drive as an html file using the export button.

6.1.3 Log Information

In this tab, you can search for relevant logs as per the set date and event which includes operation, setup, playback, backup, search, check information and error. This report can further be saved on a USB flash drive as an html file using the export button.

6.1.4 Network Information

In this tab, you can check relevant parameters of network.

6.1.5 Online Information

In this tab, you can check the details of the connected online users.

Refresh: refresh the current interface.

Disconnect: Disconnect the online users to access DVR. If this function is used by the admin, the particular PC will not be able to access

the device for five minutes. .

6.1.6 Record Information

In this tab, a user can check resolution, ftp and record status including sensor alarm recording, motion recording, manual recording or schedule recording.

6.2 Manual Alarm

In this tab, user can check the relevant parameters of manual alarm.

6.3 Disk Management

1. **Format the disk**

Step1: Enter into disk management tab

Note: *Please format the hard disk before record. If formatted, it will show the status of the disk-free space, and total space show OM at the bottom of screen.*

Step2: Click Refresh button to refresh the disk information of the list box;
Step3: Select a hard disk and click Format button to start format.

Note: *All recorded files in the hard disk will be lost after formatting.*

2. **Advanced**

User may check model, S/N, firmware, health status of the disk in this tab. User also can monitor the temperature, internal circuit, dielectric material of the disk, analysis the potential problems of the disk and warn so as to protect its data.

6.4 Upgrade

The DVR can be upgraded by using USB flash drive. Get the upgrading software from your vendor when there is a new software version.

Upgrade Steps:

Step 1: Copy the upgrade software which gets from vendor into the USB storage device

Step 2: Connect the USB flash drive to the USB port.

Step 3: Enter Menu→Upgrade tab. Then the upgrade software name would be displayed in the upgrade list box.

Step 4: Select that software and then click upgrade button. It will upgrade automatically.

Note: Please wait for a while when the system reboots. Never cut off power during upgrading. The original configuration will be reserved after upgrade.

6.5 Logoff

Enter into Menu → Logoff tab. A log off dialogue box will popup. The device will log off by clicking "OK" button. If you want to log in again, click icon to enter into user name and password to re-login.

7 Remote Surveillance

7.1 IE Remote Surveillance

In order to view the DVR from a network it must be connected to a LAN/WAN or internet. The network setup should be done accordingly. Please refer to 4.6 Network Setup. This DVR supports IE browser, on Windows XP and Vista platform.

7.1.1 On LAN

Step 1: Enter into the DVR's Main Menu→Setup→Network tab to input IP address, Subnet Mask, etc .If using DHCP, please enable DHCP in both the DVR and the router.

Step 2: Enter Record Setup to set network video parameters like resolution, frame rate etc.

Step 3: Open IE on a computer on the same network. Input the IP address of the DVR in IE address bar and press enter.

Step 4: IE will download ActiveX component automatically. Enter the username and password in the subsequent window

***Notice**: If HTTP port is not 80, other number instead, need add the port number after IP address. For example, set HTTP port as 82, need input IP address like 192.168.0.25:82. User name and password here are the same with that used on the DVR. The default is admin and 123456.*

7.1.2 On WAN

There are two ways for the DVR to connect to internet.

1. Connect the DVR to internet through router or virtual server

Step 1: Enter into the DVR's Main Menu→Setup→Network interface to input IP address, Subnet Mask, etc. If using DHCP, please enable DHCP in both the DVR and router.

Step 2: Forward IP address and port number in Virtual Server setup of the router or virtual server (If the user has enabled the UPnP function in both the DVR and router, he can skip this step). Configure the firewall to allow accessing the DVR.

***Note**: Port forwarding settings may be different in different routers and server. Please refer to the router's manual for details.*

Step 3: Open IE browser, input IP address, or dynamic domain name and enter. If HTTP port is not 80, add the port number after IP address

or domain name.

Step 4: IE will download ActiveX automatically. Then a window pops up and asks for user name and password. Input name and password correctly, and enter to view.

***Note**: If you cannot download and install ActiveX, please refer to FAQ Q8.*

2. Connect the DVR to internet directly.

Step 1: Enter into the DVR's Main Menu→Setup→Network interface to enable PPPoE and then input user name and password received from your ISP. Next, click 'Apply'. The DVR will connect to the server and would give a confirmation message.

Step 2: When accessing the remote interface of DVR, user can input WAN IP to access directly (user can enter into Main menu→Information→Network interface to check IP address).

Step 3: If users want to utilize dynamic domain name, please apply for a domain name in a DNS server supported by the DVR or router. Then add to the DVR or router.

Step 4: The following setting steps are as the same as Step3 and Step4 in Point 1.

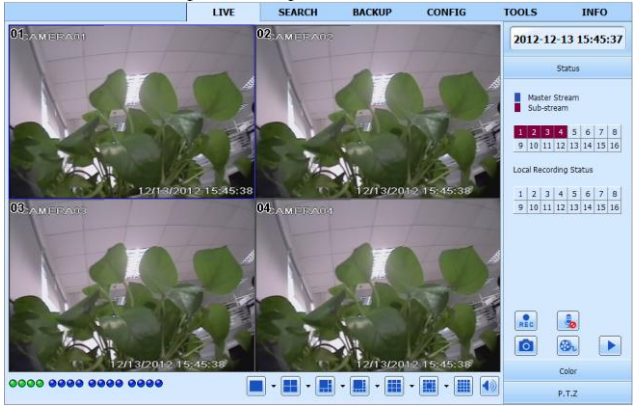


Fig 7-1 View with IE Browser

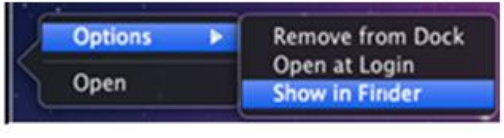
7.2 Remote Surveillance through Apple PC

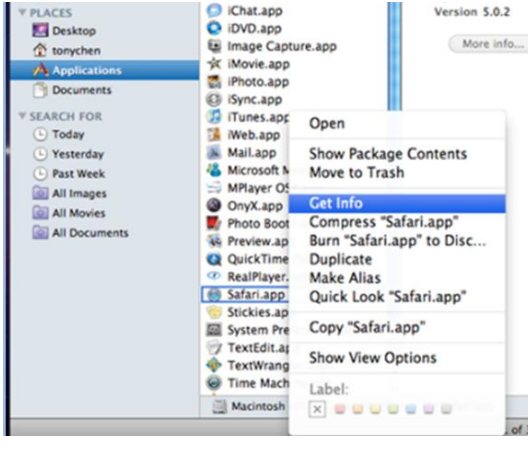
Note: Because the current plug-in version of client end just only supports 32-bit mode, so the safari browser shall start 32-bit mode. If the browser is the earlier MACOS version, the default setting is 32-bit mode and the setting can be skipped.

The Setting steps are as follows:

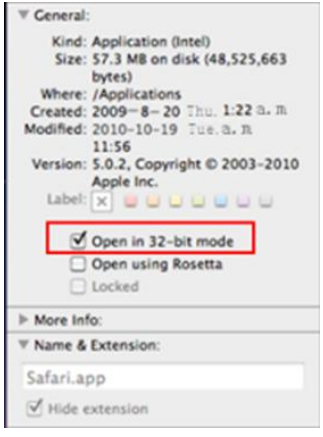
First: Right click safari icon and select “Show in Finder”.

Second: Select Applications→Right click “Safari. App”→Select “Get Info”.





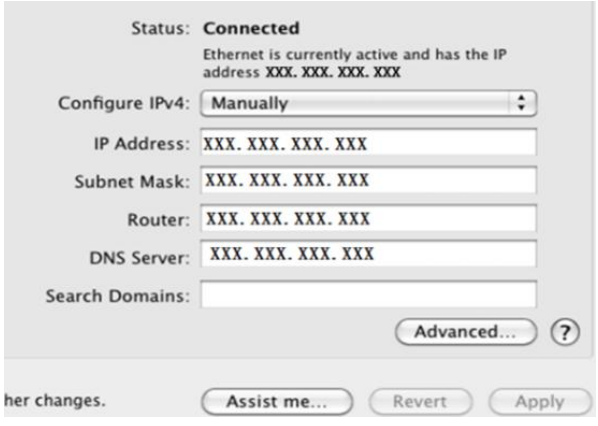
Third: Select “open in 32- bit mode”.



7.2.1 On LAN

Step 1: After starting Apple computer, click Apple icon. The following window will pop up. Please select “System Preferences”→”Internet &Wireless”→click “Network”

Step 2: Enter into Network tab and then click “Ethernet Connected” to check the internet connection of Apple PC.



Step 3: After acquiring the IP address, Subnet Mask and so on, please enter into the DVR's Main Menu→Setup→Network tab to manually input IP address, Subnet Mask and Gateway according to the configuration of PC. The network segment should be the same as the PC. If using DHCP, please enable DHCP in the DVR and router.

Step 4: After finishing the above information, users can enter LAN IP and http port in the Safari browser. For example: input http://192.168.1.100:81(here 192.168.1.100 is LAN IP of DVR, 81 is the http port of DVR). Click " " button, the browser will download Active X control as shown below:

Step 5: Click icon and then select the Active X control, the welcome interface will be shown. Click "Continue"→"Install" button,

the following window will pop up：

Input the name and password of Apple PC and then click “OK” to install this Active X control.

Step 6: After finishing installing the Active X control, please quit from the Safari browser. Right click Safari icon on the desktop and then select “Quit” button to quit the browser. Then restart Safari browser. Input the IP address and http port to enter into the login interface of DVR.

7.2.2 On WAN

There are also two ways for DVR to connect to Internet.

1. Connect the DVR to internet through router or virtual server

Step 1: The network setups are the same as step one to step four of point 1 on WAN of IE remote surveillance.

Step 2: Enter WAN IP and http port in the Safari browser to install the Active control. Then a window pops up and asks for user name and password. Input name and password correctly, and enter to view.

2. Connect the DVR to internet directly.

Step 1: The network setups are the same as step one of point 2 on WAN of IE remote surveillance.

Step 2: Enter WAN IP and http port in the Safari browser to install the Active control. Then a window pops up and asks for user name and password. Input name and password correctly, and enter to view.

7.3 The Remote Live Preview

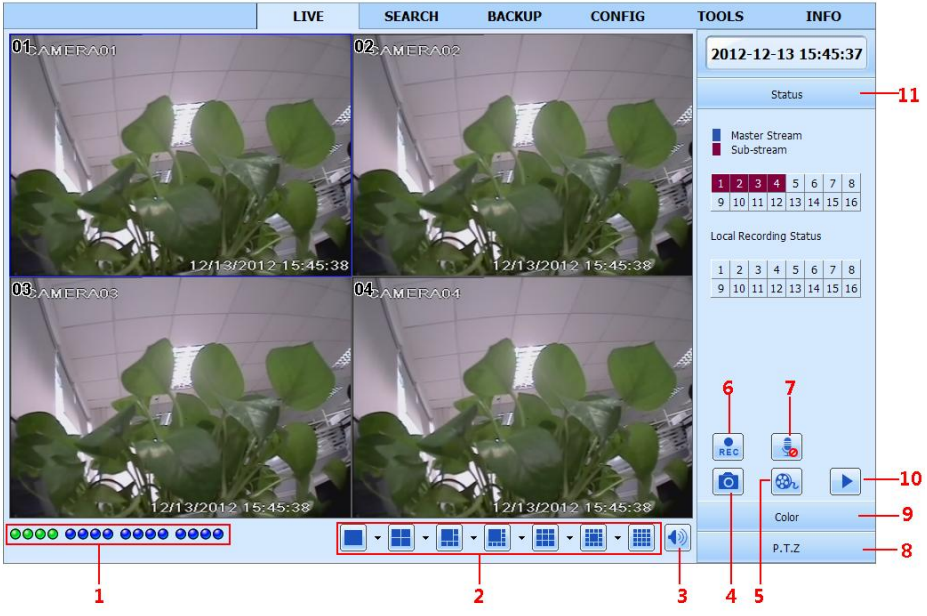


Fig 7-2 Remote Live Preview

Symbol and function Definitions:

①	Channel indicator	②	Screen display mode	③	Volume
④	Snapping picture	⑤	Start IE record	⑥	Start manual record
⑦	Bidirectional talk	⑧	PTZ control	⑨	Color
⑩	Playback	⑪	Master/sub stream status		

Note: *Click* *button to record manual and the record file will be saved in user's PC.*

Screen Display Mode:

Clicking the icon beside the screen display mode, channel select dialog will appear as below:

Take 16-channel DVR for example: user can checkmark channels form 1-ch to 16-ch at random to display the live pictures, 8 channels can be selected at most. Then click OK button to confirm the setting.

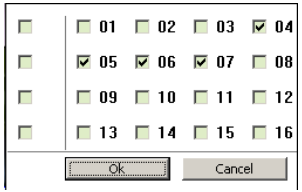


Fig 7-3 Channel Select Dialog

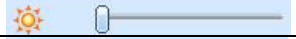
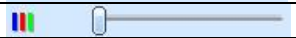
Snap Pictures

Click "Snap" icon, the system will automatically capture pictures and save those pictures in the computer.

User should set up the save path for those picture in the Remote Preview interface→Configuration→Local configuration.

Color Adjustment:

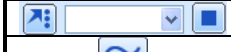
Drag the slide bar to adjust Brightness, Contrast, Hue and Saturation. Click Default to reset them to original value.

Buttons	Description
	Drag the scroll bar to adjust the brightness of channel
	Drag the scroll bar to adjust the contrast of channel
	Drag the scroll bar to adjust the saturation of channel
	Drag the scroll bar to adjust the hue of channel
	Click this button to recover the default value of brightness, contrast, saturation and hue.
	Save the adjustment

PTZ Control

Please connect speed dome to the device via RS485 firstly, make sure the protocol of the speed dome is supported by the device and set the relative parameters manually. User can control the dome up, down, right, left or stop rotating on Control Center, adjust rotation speed, Iris and zoom, focus on the dome, and set the presets, etc.

Buttons definition:

Buttons	Description
	to rotate the dome upwards. to rotate the dome diagonally up-left. to rotate the dome diagonally up-right to rotate the dome downwards. to rotate the dome diagonally down-right to rotate the dome diagonally down-left to rotate the dome towards left. to rotate the dome towards right to stop rotating the dome.
	Drag the scroll bar to adjust rotating speed of the dome.
	'Iris' button. Click button near 'Iris' button to increase light of the dome. Click button near 'Iris' button to decrease light of the dome.
	'Zoom' button. Click button near 'Zoom' button to zoom in the locale picture of this camera. Click button near 'Zoom' button to zoom out the locale picture of this camera.
	'Focus' button. Click button near 'Focus' button to have long focus. Click button near 'Focus' button to have short focus.
	Go to the Preset
	Select and do auto cruise
	Track
	Auto scan
	Wiper button
	Light button

Click the right mouse on the live interface. Then a pull-down menu will appear as below.

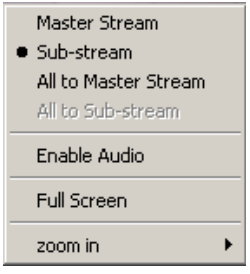


Fig 7-4 Right Key Sub Menu

Stream: This DVR supports master stream and sub stream. Master stream has higher frame rate, max 25FPS(PAL)/30 FPS(NTSC)for every channel, but it needs higher network bandwidth simultaneously; second stream has low frame rate, max 6FPS(PAL)/7FPS(NTSC) for every channel, it requires low network bandwidth. Therefore, users can select the stream according to their bandwidth.

All to master/sub stream: Set all channel to master stream or sub stream.

Enable audio: Enable or disenable audio.

Full screen: In full screen status, the live preview picture will display with full screen and the tool bar will be hided; double click left mouse or click right mouse to return.

Zoom in: Single channel large screen electronic amplification.

Click the channel which needs to be zoomed. Right click to select zoom in button to zoom in the image. Double click or right click to exit.

7.4 Remote Playback & Backup

7.4.1 Remote Playback

Click button to enter into record playback interface. Refer to Fig 7-5:

Select the record date and channels and double-click the file name in the record file list box. Then user can play that file and preview the picture.

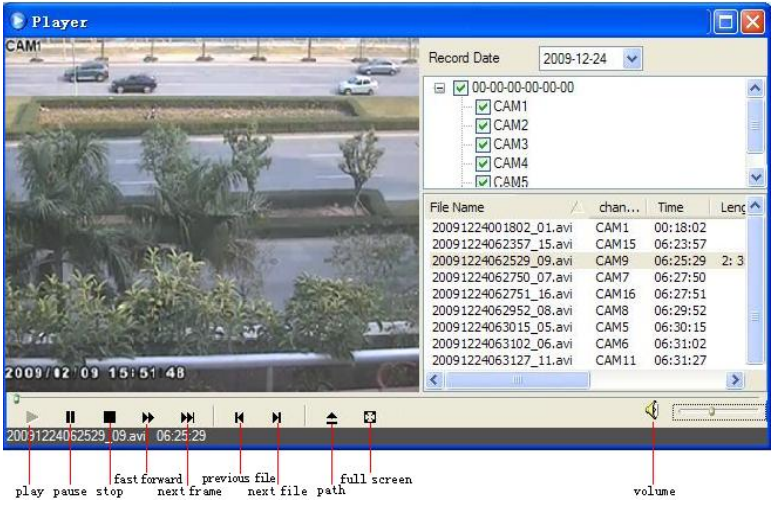


Fig 7-5 Play Record File

This DVR supports remote time search, event search and file management.

By Time Search:

Step1: Enter into Search→time search. Refer to Fig 7-6:

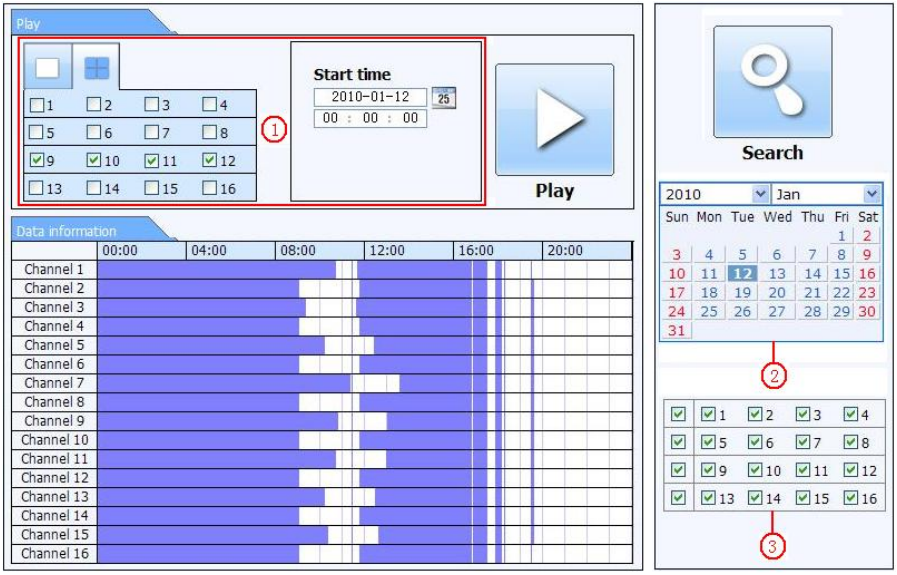


Fig 7-6 Time Search

Step2: The highlight date in the area② indicates recorded data. Select the date in the area ② and record channels in area③.

Step3: Click "Search" button. The record data will be displayed in the data information list box.

Step 4: Set the Start time and display mode in the area① as required.

Step 5: Click "play" button to playback.

Step 6: Click the relevant buttons in the interface for operation, like FF, pause, change channel mode, research, etc. Please refer to Fig 7-7:

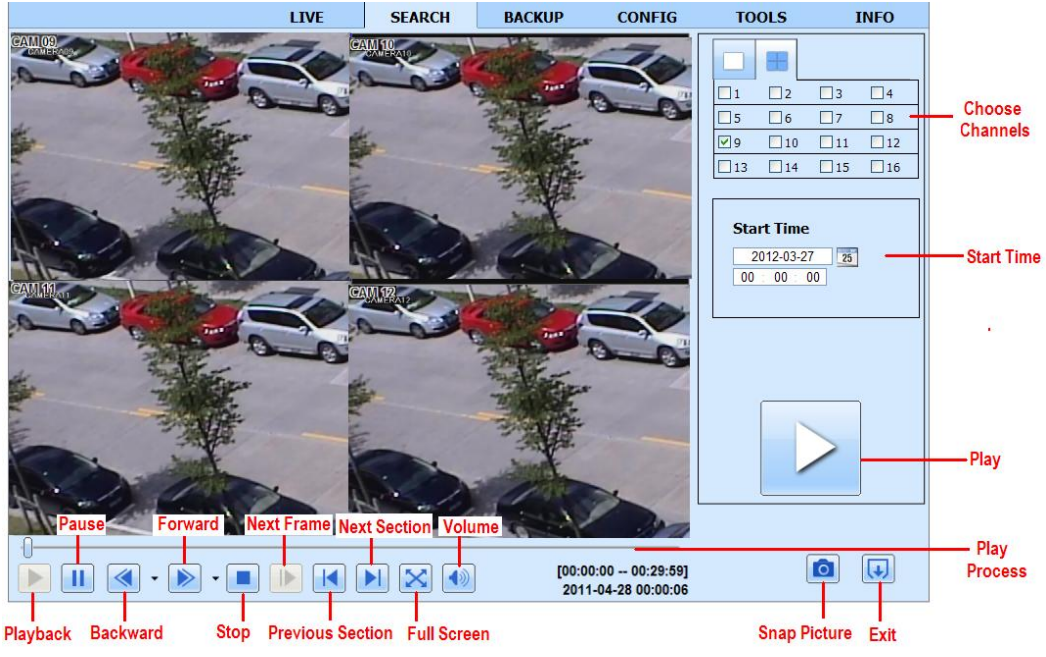


Fig 7-7 Playback By Time Search

By Event Search:

Step1: Enter into Search→event search. Refer to Fig 7-8:

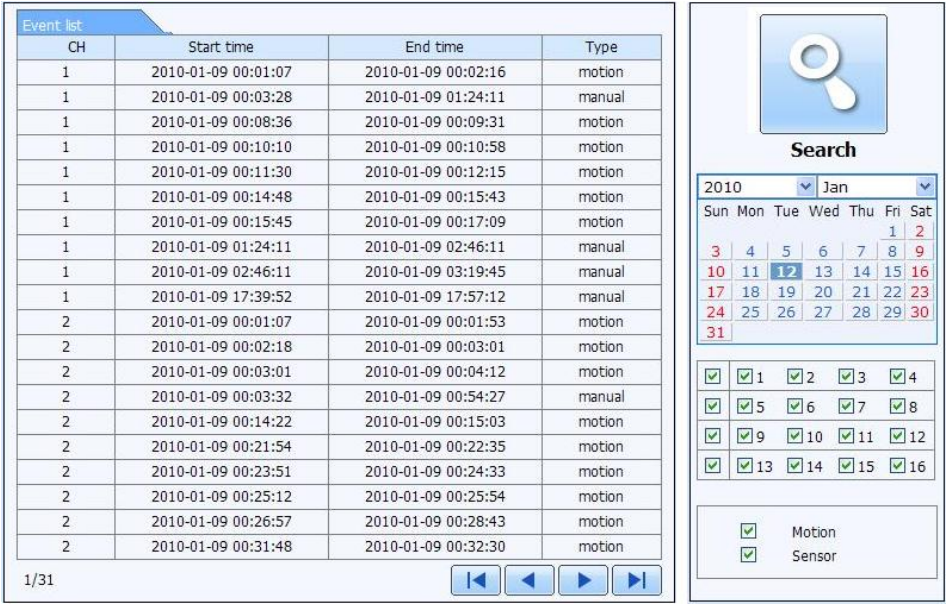


Fig 7-8 Event Search

Step 2: Click the highlight date and select record channels.

Step 3: Checkmark the event type: motion and sensor.

Step 4: The events will be display in the event list box by clicking Search button.

Step 5: Double-click certain item to playback.

File Management

Step1: Enter into Search→File Management. Refer to Fig 7-9:

Step 2: Select highlighted date and channels.

Step 3: Click “Search” button to search the recorded files.

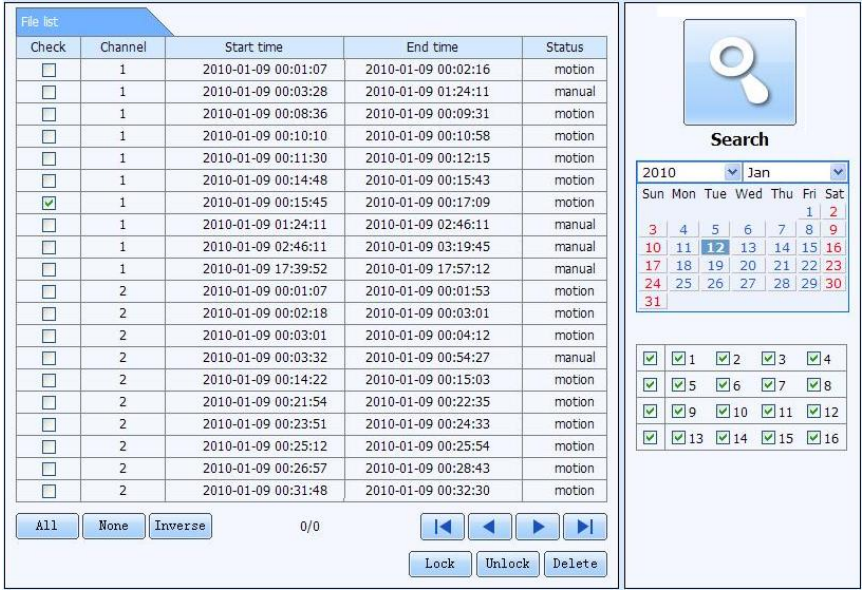


Fig 7-9 File Management

Lock: Select certain file item in the file list box and then click “Lock” button to lock this file that ca not be deleted or overlaid.

Unlock: Select a locked file and then click “unlock” button to unlock this file.

Delete: Select an unlock file and then click “delete” button to delete this file from file list.

7.4.2 Remote Backup

Click Backup button to enter into backup interface. Please refer to Fig 7-10:

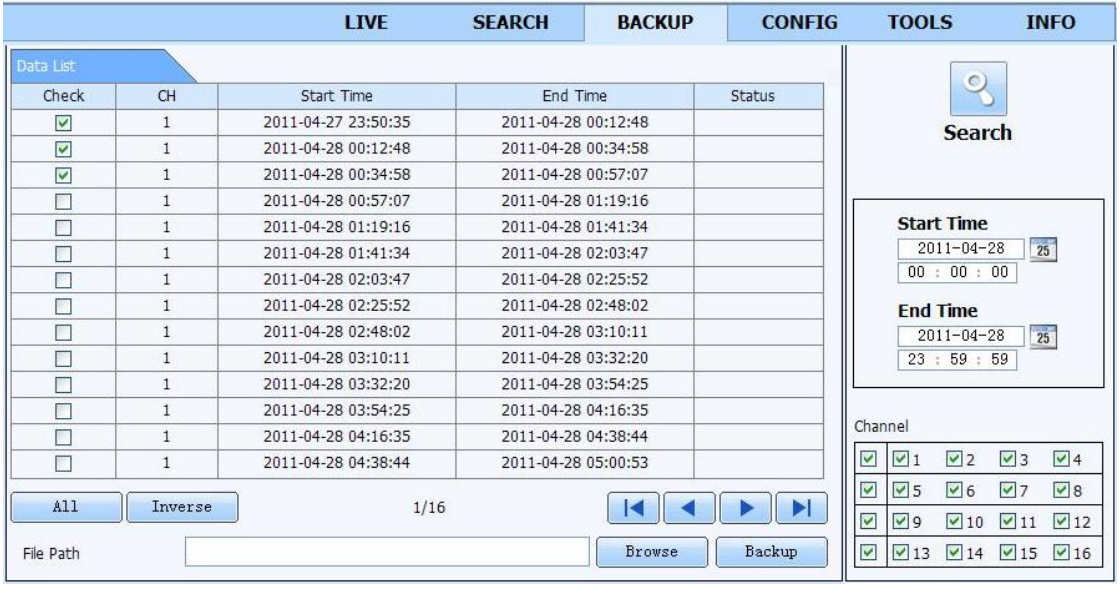


Fig 7-10 Remote Backup

Step1: Select channels, set the start and end time and then click “search’ button to display the file information in the file list box.

Step2: Select backup files and click “browse” button to set the save path. Then click “backup” button to start backup. The backup files will be saved on user’s PC.

7.5 Remote System Configuration

You can do remote setup of the device which includes functions like basic configuration, live configuration, record configuration, schedule configuration, alarm configuration, network configuration, PTZ configuration and user configuration. You should select an option from the menu list on the left and then setup the relative parameters. Only one user can do configuration setup at a given point of time. Click Config tab to enter into the below interface as Fig 7-11:

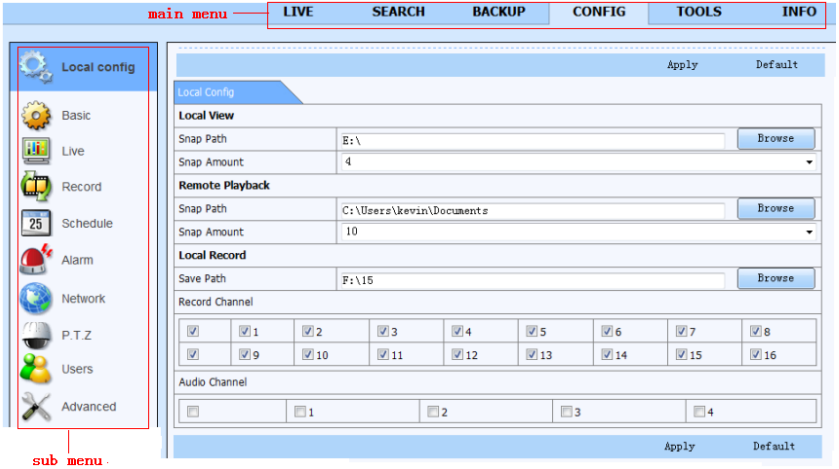


Fig 7-11 Remote Menu Setup

The sub menu list and the options in every menu are similar to that of the DVR. Please refer to Chapter 4 Main Menu Setup Guide for more details.

7.6 Tools

Click on tool's tab to access the disk management tool. You can view the status of the HDD, change/view the read/write properties and can

also format the HDD remotely.

7.7 Remote Management

The Info tab provides a web based interface to access the general information pertaining to the DVR's settings. It includes five submenus: System, Event, Log, Network and Online users. The sub menu list and the options in every menu are similar to that of the DVR. Please refer to Chapter 6 System information for more details.

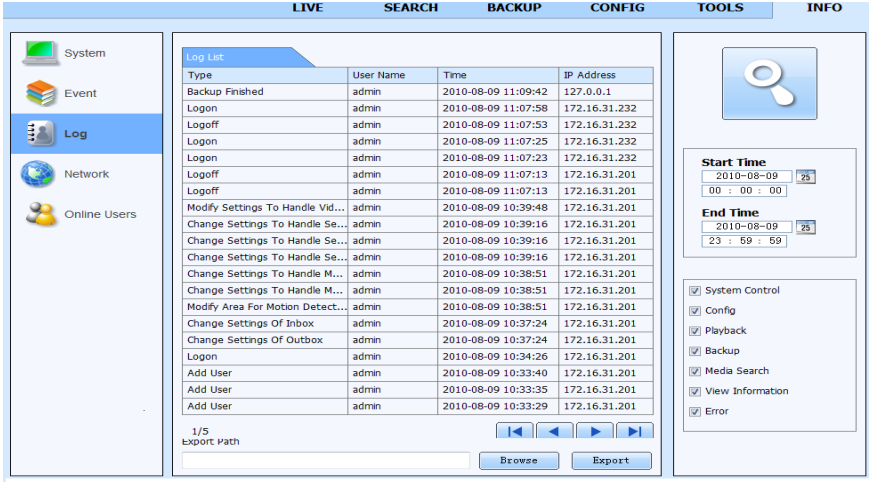


Fig 7-12 Remote Information Search

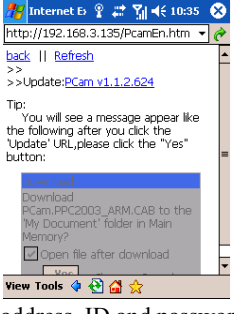
Note: *There may be slight differences with respect to functions of remote surveillance between through IE and through Apple PC. Here we only take IE remote access for example.*

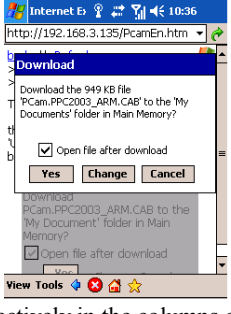
8 Mobile Surveillance

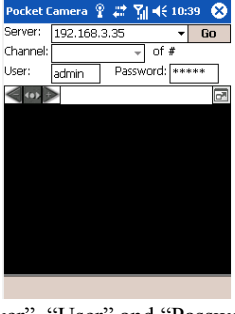
This DVR supports mobile surveillance by Iphone, Gphone，blackberry or smart phones with Windows mobile and symbian OS. At the same time, it supports 3G network. We tested Dopod D600 (WM5) and Dopod S1 (WM6), which work fine with the DVR.
It wants to make mobile surveillance, need first enable network service on the DVR, and refer to Chapter 4.6 Network configuration. The below is the use instructions on mobile client end for five OS.

8.1 By Phones with Windows Mobile OS

Step1： Firstly activate the network access on mobile phone and then run “Internet Explorer”. Input the server’s address shown as below picture on the left:
Step2：Click on the software name. A dialog box pops up as below picture in the middle:
Step3：Click “Yes” to start downloading and installing:
Step4：PCam will be opened automatically after installation. Refer to the picture on the right:

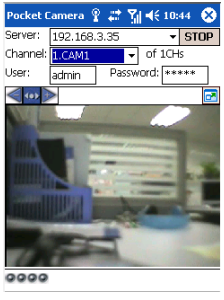

Internet Ex 10:35
http://192.168.3.135/PcamEn.htm
back || Refresh
>>
>>Update:PCam v1.1.2.624
Tip:
You will see a message appear like the following after you click the 'Update' URL,please click the "Yes" button:
Download
Download PCam.PPC2003_ARM.CAB to the 'My Document' folder in Main Memory?
Open file after download
View Tools

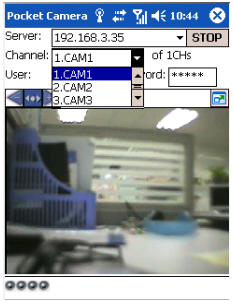




Step5：Input the server’s address, ID and password respectively in the columns of “Server”, “User” and “Password”, and click “Go” to log on the server. It will show the picture if successful access. Refer to the below picture on the left:

Step6：Camera 1 is the default channel after login. Change the channel in rolling-down menu of "Channel": refer to the below picture on the right:





***Notice**: User name and password here are the same with that used on the DVR. The default is admin and 123456.*

8.2 By Phones with Symbian OS

Please use the smart phones with symbian version supported by this unit. The detail information is as follows:

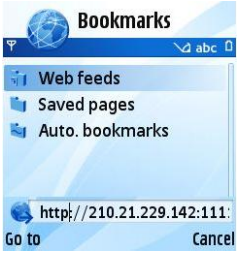
Symbian S40	support
Symbian UIQ	support
Symbian S80	support
Symbian S60	support
Symbian S60 3rd Edition-Symbian OS v9.1	support
Symbian S60 3rd Edition with FP 1-Symbian OS v9.2	support
Symbian S60 3rd Edition with FP2-Symbian OS v9.3	support
Symbian S60 5th Edition-Symbian OS v9.4	support
Symbian S60 5.1 Edition-Symbian OS v9.5	support

Step1：Firstly enable the network access on mobile phone. Then run Web browser.

Step2：Input the DVR server's IP address in a new-built bookmark. Click this bookmark to connect to the DVR. Refer to the picture on the

left:

Step3：A welcome window will pop up and requires a package. Click the software name to download. Refer to the picture on the right:



Step4：A security windows will pop up after downloading and ask whether to install the package. Click YES to install.

Step5：A Scam shortcut icon appears on the system menu after finishing installation.

Step6：Run Scam program. It will enter a function interface. Refer to the picture on the left:

Step7：Click System setting--->Login Setting to enter login interface. Refer to the picture on the right:

Live view: to do mobile live view.
Image view: to check the pictures Snapped in live view.
System setting: Login setting And Alarm setting.
Help: function indication and help

Step8：Input the server's address, ID and password respectively. Then save.

***Notice**: There may be different access points in different countries or from service providers.*

Step9：Enter Live View. It will connect the server and display pictures. Refer to the picture on the left:

***Notice**: User name and password here are the same with that used on the DVR. The default is admin and 123456.*

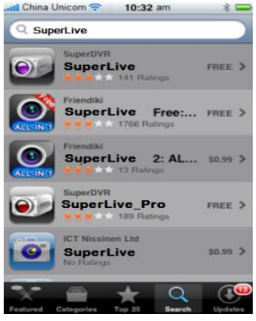
Step10：In Live View, users can do snapshot, change channels and control PTZ. Refer to the picture on the right:

8.3 By Phones with iPhone OS

1. Install through iPhone

Step 1: Open App Store function of iPhone.

Step 2: Enable “search” function to search “Superlive”.

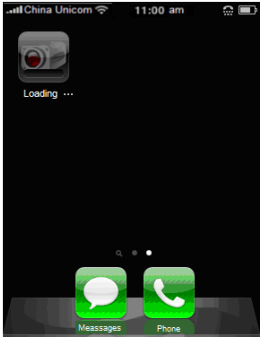


Step 3: Click Superlive-pro, enter into "introduce" interface and then click "FREE". Now, it will change into "INSTALL"

China Unicom
2:19 p.m.
Search
Info
SuperLive _Pro
No Ratings
FREE
SuperLive is a professional mobile phone client software for digital video recorders and IP cameras in CCTV surveillance (compatible models only).
1.Support single,Multi-channel monitor switching.
2.Support PTZ control
3.Support channel video capture,record and record playback
4.Support channel audio
5.Support server list. No limit on the number of server list.
6.Support audio , shake alarm.
7.Support remoto server information query.
8.Support electronic zoom (fullscreen mode)
9.Support backup record files to Ablum on iPhone,then you can transport these files to PC by iTunes.
Featured
Categories
Top 25
Search
Updates

China Unicom
2:19 p.m.
Search
Info
SuperLive _Pro
No Ratings
INSTALL
SuperLive is a professional mobile phone client software for digital video recorders and IP cameras in CCTV surveillance (compatible models only).
1.Support single,Multi-channel monitor switching.
2.Support PTZ control
3.Support channel video capture,record and record playback
4.Support channel audio
5.Support server list. No limit on the number of server list.
6.Support audio , shake alarm.
7.Support remoto server information query.
8.Support electronic zoom (fullscreen mode)
9.Support backup record files to Ablum on iPhone,then you can transport these files to PC by iTunes.
Featured
Categories
Top 25
Search
Updates

Step 4: Input iTunes Store password and then click "OK". Then the software will be installed automatically.



Note: If it was the first time for user to operate, please enter user ID; if there is no Store account, user needs to apply one.

2. Install through PC

Step 1: Install iTunes store in PC and then login

Step 2: Connect iPhone and PC

Step 3: Enable “search” function to search “Superlive-Pro”

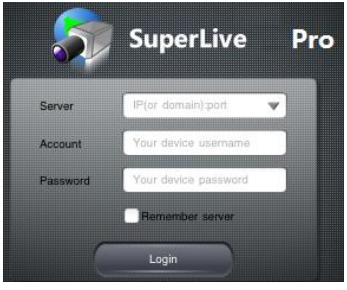
Step 4: Click “free application” button

Step 5: Input apple ID and password, then click “acquire”

Step 6: Checkmark “synchronously apply program” and “Superlive-pro”, and then click “apply” button

Operation Instruction for Superlive-Pro

1. Login interface



Enter server's IP address (or domain name), user name and password
Click "Remember server" to save the setting; click ▼ button can quick input saved server address, user name and password.

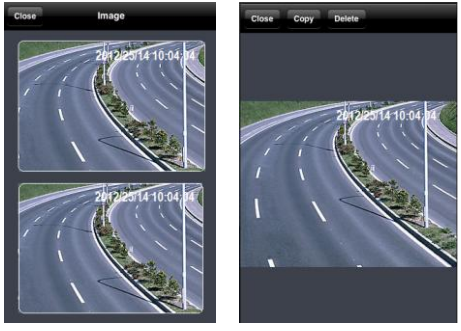
2. Main Interface

	Image view		Four channel
	Playback		Snap
	Setting		Record
	Information view		Audio
	Server list		Talk
	Logoff		Color
	Single channel		PTZ

	Upward rotates the PTZ		Downward rotates the PTZ
	Leftward rotates the PTZ		Rightward rotates the PTZ
	Stop rotating the PTZ		Zoom In/Focus In/Iris Add
	Zoom Out/Focus Out/Iris Sub		To enter into the next interface
	To return to the previous interface	Preset	select the preset point
Cruise	Set the cruise line	Speed	Rotate speed of the PTZ

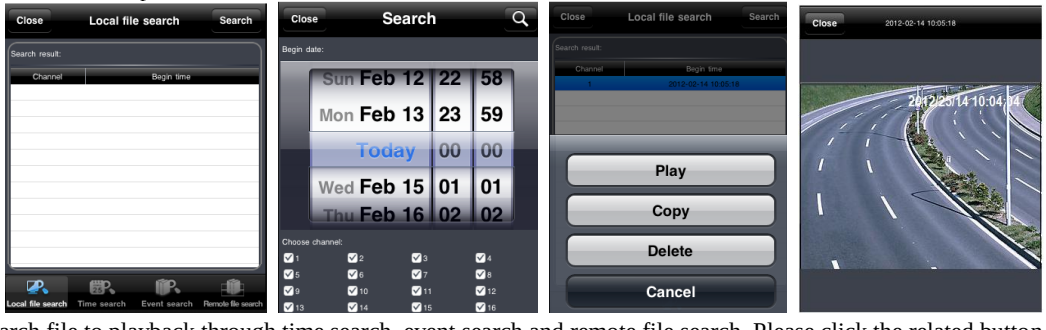
3. Image View

After the image is snapped, you can click icon to enter into the image view interface. Select the image and click it to amplify this image. Then you can copy or delete the image. Click ‘close’ button to return to the previous interface.



4. Playback

Click icon to enter into the playback interface. Then click 'Search' button, select the time and channel to playback and click button. Now you can see the local file list. Select a file and click play button to playback. You can also copy or delete the file. Finally, click 'Close' button to return to the previous interface.

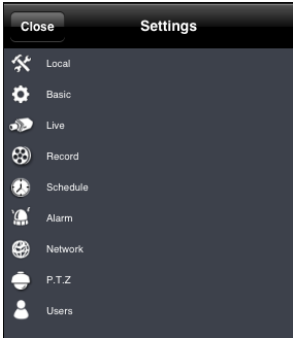


You can also search file to playback through time search, event search and remote file search. Please click the related button.

5. Server list

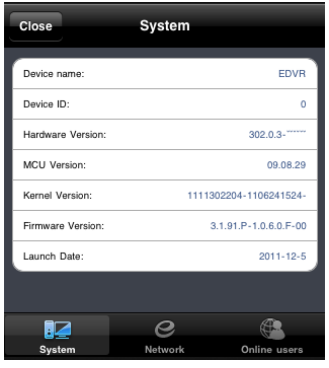
Click button to enter into server list interface. You can click icon to add a server list. After you add the list, you can click icon to edit the server information and click icon to delete this server information.

6. Configuration interface



Click icon to enter into Settings interface. You can set many properties, such as local, basic, live, record, schedule, alarm, network, etc. Please see chapter four in respect of setting steps for more details.

7. Information View Interface

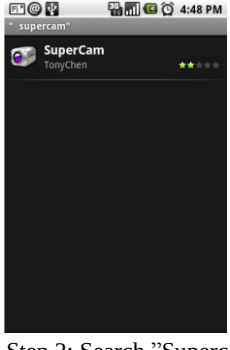


Click icon to enter into information view interface. You can check the information of system, network and online users. In the system interface, you can see the information of device name, device ID, hardware version, MCU version and so on. In the network interface, you can see the information of http port, server port, IP address, gateway, network status, etc. In the online users interface, you can see the information of the current online users.

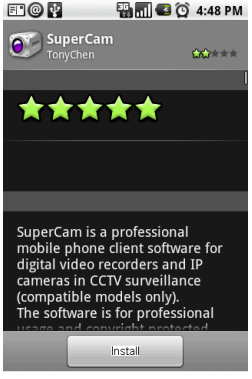
8.4 By Phones with Android OS

Software Installation

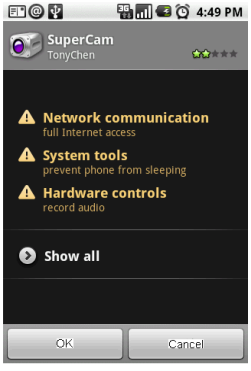
Step 1: Run Google Market program



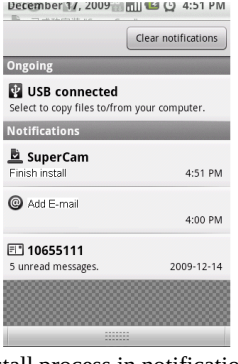
Step 2: Search ”Supercam”


4:48 PM
SuperCam
TonyChen
SuperCam is a professional mobile phone client software for digital video recorders and IP cameras in CCTV surveillance (compatible models only).
The software is for professional
Install

Step 3: Press “Install” button

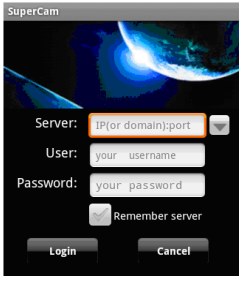


Step 4: Click “OK” button



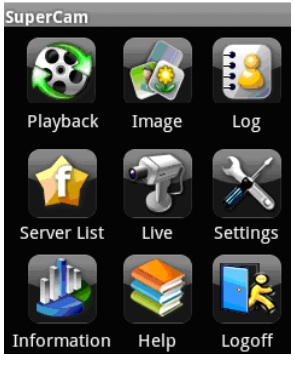
Step 5: User can view the download and install process in notifications; Finished downloading, the software will install automatically.

Login



Enter into server's IP address (or domain name), user's ID and password.
Click "Remember server" to save the setting; click ▼ button can quick input saved server address, user name and password.

Main menu



【Playback】	playback record file	**【Image】**	image view
【Log】	log record	**【Server List】**	device list
【Live】	live view	**【Settings】**	software setting
【Information】	device information view	**【Help】**	software help center
【Logoff】	logoff and return to login interface		

Live view

	Stop playing		Single channel display
	Screen mode		Four channels display
	Snap		PTZ
	Talk	REC	Record
	Live audio		Hide

Image view

	The first picture
	The previous picture
	Next picture
	The last picture
	Zoom in
	Zoom out
	Delete

Record playback

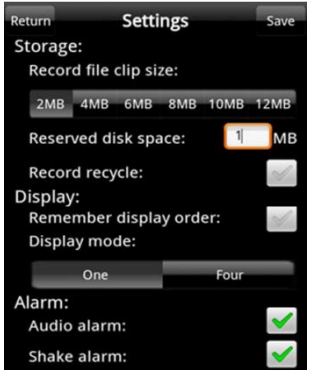
	Play/Pause
	Stop
	Fast forward
	Slow play

Click Playback icon in the Main Menu interface to enter into the playback interface. First, choose channel. Second, select the record file and click it to playback. Finally, click 'Return' button to return to the previous interface.

Server list

Add	Add a server list
Modify	Modify a server list
Delete	Delete a server list
Return	Return to the previous interface

Config interface



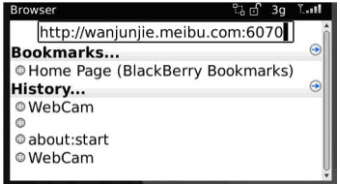
Alarm setting	If Audio alarm is enabled, when Video Loss/Sensor/Motion happen，sound alarm will be triggered; If shake Alarm is enabled, when Video Loss/Sensor/Motion happen，shake alarm will be triggered.
Storage setting	User can setup the relevant parameters of mobile video. This function can be valid only insert SD card.
Display setting	User can setup display order or display mode.

Information view

8.5 By Phones with BlackBerry OS

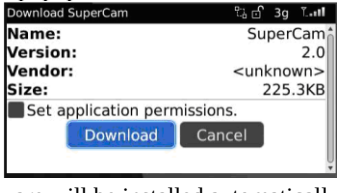
- **Installation instruction for BlackBerry Mobile phone Client**

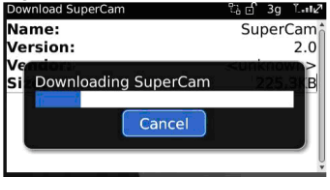
1. Open the browser of BlackBerry phone and enter sever address
2. Click “Supercam” to link



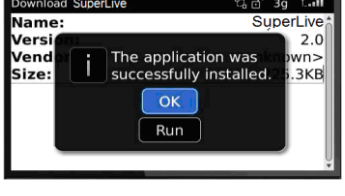
WebCam
WELCOME
SuperCam for BlackBerry
NOTE:
This software is designed for BlackBerry OS above 4.5.
If you use BlackBerry storm 9500 or 9530,You will have a compatible probler
just choose Option menu->Advance options-> Application->SuperCan
SuperDVR components

3. Click “Download” button on the popup interface and the download progress will be shown.





4. Finished downloading, the software will be installed automatically.



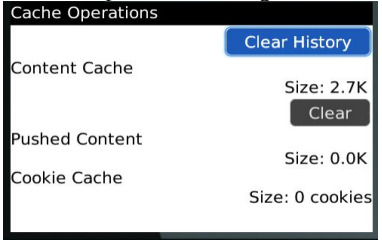
If the software fails to download, please check in accordance with the following steps:

1. Check whether the network of mobile phone is normal or not.

2. Check whether DVR server connect network normally or not.
3. Modify the option of Browser Configuration.

(1) Enter into Menu->Option->Browser Configuration; configure referring to the following figure on the left.

(2) Enter into Menu->Option->Cache Operations, clear up browser cache. Refer below picture on the right:



When user used the Supercam software in mobile phone with touch screen, there will be compatible problem.

Solution: Enter into Options Menu->Advance options->Applications->Supercam and click "Disable Compatibility" button. This problem will be solved.

- **Operation method for Blackberry mobile phone client**

1. **Login**

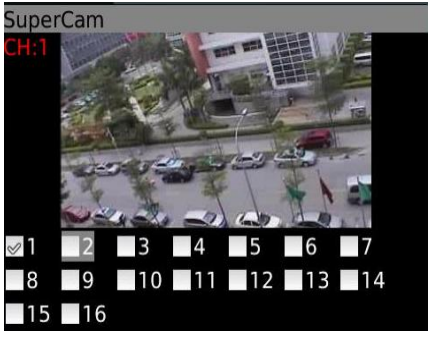
Enter server's IP address (or domain name), user's ID and password.

Click "Remember server" to save the setting; click ▼ button can quick input saved server address, user name and password.

2. Main interface

Playback	playback record file	**Image**	image view
Log	log record	**Server List**	device list
Information	device information view	**Help**	software help center
Logoff	logoff and return to login interface	**Settings**	software setting
Live	live view		

3. Live view



Note: *User can click* *Return button on the Blackberry phone to return the previous interface.*

Mark 1	Current viewing channel	Mark 2	Channel status
	Switch channels		PTZ, click to switch to Fig 2 interface
	Snap		Full screen
	Background alarm		Stop rotating the PTZ
	Upward rotates the PTZ		Downward rotates the PTZ
	Leftward rotates the PTZ		Rightward rotates the PTZ
	Zoom In/Focus In/Iris Add		Zoom Out/Focus Out/Iris Sub
Preset	Select the preset point	Group	Set the cruise line

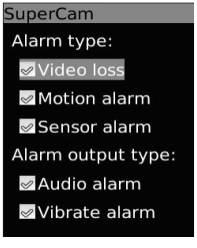
4. Server list

[Add] Add a server list

[Modify] Modify a server list

[Delete] Delete a server list

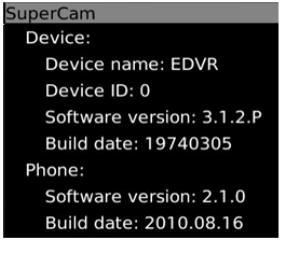
5. Software configuration



Alarm type: Setup the type of background alarm (Video Loss/Sensor/Motion)

Alarm output type: Setup prompt type of backgound Alarm (sound alarm/ bibrate alarm)

6. Information view



Device ID: the current connection device ID

Software version: the current connection device software version

Build date: the current connection device build date

Software version: the software version of mobile phone in use

Software build date: the software build date of mobile phone in use

Appendix A FAQ

Q1. Why the DVR cannot start after connected to the power?

a. The adapter has been damaged. Please change an adapter

b. The power of the adapter is not enough. Please remove the HDD to check

c. Hardware problem

Q2. There is not menu output or only has live image display

a. Check up whether other devices can display menu or long press ESC key to wait for login dialog box to appear.

Q3. The indicator of the DVR lights, but no output. Why?

a. The power of the adapter is not enough. Please remove the HDD or change an adapter to try.

b. The video format of the DVR is different from that of the monitor.

c. Connection problem. Please check the cable and the ports of monitor and DVR.

Q4. Why are no images displayed on parts or all of the channels of the DVR?

a. Connection problem. Please check the cable and the ports of camera and DVR.

b. Camera problem. Please check the cameras.

c. The video format of the DVR is different from that of the cameras. Please change DVR system format.

Q5. Cannot find HDD

a. The power of the adapter is not enough. Please change an adapter to try.

b. Connection problem. Please check the power and data cables.

c. The HDD is damaged. Change a new one.

Q6. Cannot record

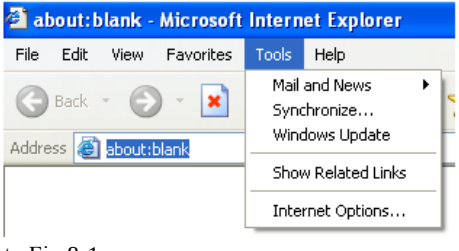
a. Don't format HDD. Please format it manually first.
b. Don't enable record function or incorrect setup. Please refer to Chapter 5.
c. HDD is full and not enables recycle function. Please refer to 4.3 Record configuration. Chang a new HDD or enable recycle.
d. The HDD is damaged. Change a new one.

Q7. Cannot use mouse.

a. Wait 1-2 minutes after mouse connected.
b. Not detected. Plug/unplug several times.
c. The mouse is incompatible. Please change a mouse.

Q8. Cannot download ActiveX control.

a. IE browser blocks ActiveX. Please do setup following below.
① Open IE browser. Click Tools-----Internet Options….



② Select Security------Custom Level….Refer to Fig 8-1
③ Enable all the sub options under "ActiveX controls and plug-ins" refer to Fig 8-2
④ Then click ok to finish setup.
b. Other plug-ins or anti-virus block ActiveX. Please uninstall or close them.

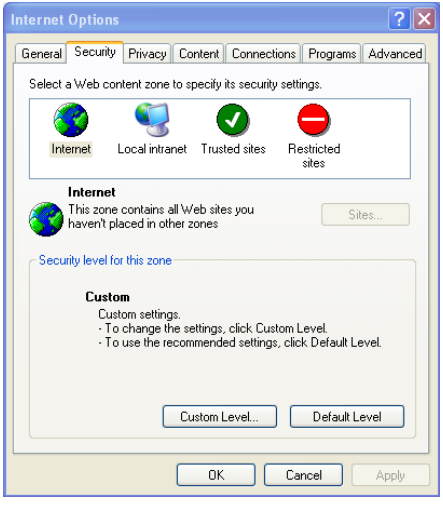


Fig 8-1

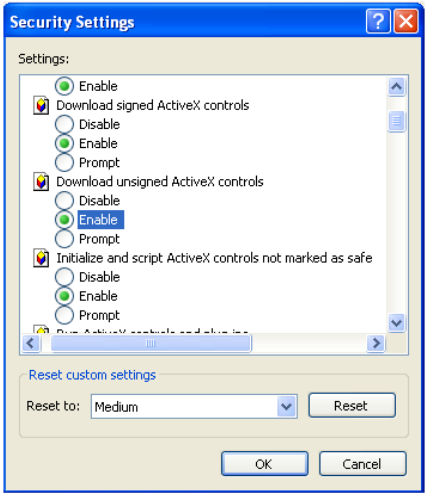


Fig 8-2

Q9: How to deal with when DVR starts, it displays "please wait…"all the time

First possible reason: hard-disk cable and data cable are not well connected.

Solution: Please check the connection of hard-disk cable and data cable and make sure they are well connected; If still not working, please unplug them and then try re-plugging again;

Second possible reason: It is forced to stop because hard disk has disabled track which causes the system checking hard disk cannot skip

Solution: Change another new hard disk or reformat the broken one

Q10: How to input password and digital numbers

The method to input password and digital numbers is to click the box behind *password* or *items* needing to input by numbers, and then the

small keyboard will appear. Please select number or letter to input (the initial password is 123456), or you can use the digital keys in the front panel, or the digital keys on the remote controller.

Q11: Why is the hard disk used in a DVR identified a new hard disk if directly used to another same type DVR? And why must we format it again?

When DVR only uses one hard disk, the hard disk removed from one to another same type DVR can work normally without format. However, when a DVR adds to a new hard disk, it will identify the hard disk as a new one and inquire whether to format no matter whether this hard disk used or not in another same type DVR before. In this condition, it can be used normally after formatted according to the guide; if two or more hard disks used in different DVRs, when used in another DVR with the same type, they will be identified to be two or more new hard disks, and all of them need to format. In general, please do not try using more disks removed from different DVRs into another one in case the data lose.

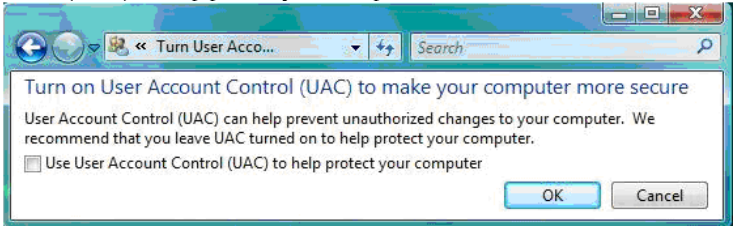
Q12: What are the minimum configurations of PC for clients connecting?

PC Module	Parameters
CPU	Intel Celeron 2.4G
Motherboard	Intel 845
HDD	80G
RAM	512M
VGA	NVIDIA GeForce MX440/FX5200; ATIRADEON 7500/X300
OS	Windows 2000(SP4 above) /Windows XP(SP2 above) /VISTA
DirectX	9.0

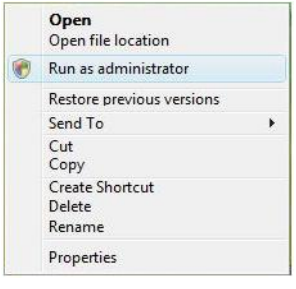
Q13: How to handle the situation when codec Control is blocked to install in the VISTA or Win7 system?

If user gets this problem, may have two ways to fix it:

a. Enter Control Panel→User Account and Family Safety → User Account Control(refer to below picture); click Turn User Account on or off. Cancel Use User Account Control (UAC) to help protect your computer.


« Turn User Acco...
Search
Turn on User Account Control (UAC) to make your computer more secure
User Account Control (UAC) can help prevent unauthorized changes to your computer. We recommend that you leave UAC turned on to help protect your computer.
Use User Account Control (UAC) to help protect your computer
OK
Cancel

b. Right click IE browser (refer to Fig 13-2), select Run as administrator to run browser.

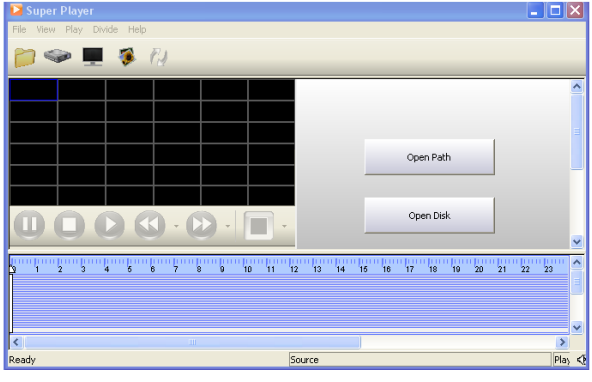


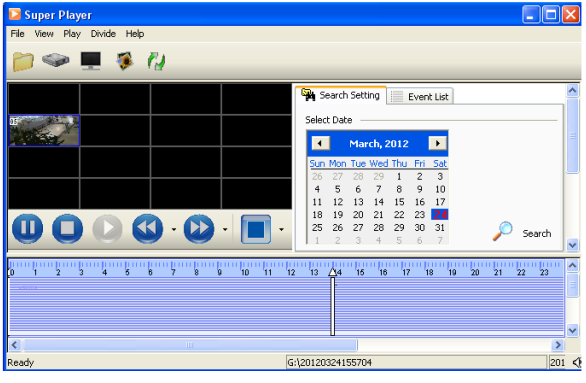
Q14. How to play the backup file?

a. Insert your USB device where the backup files are saved in the USB port of PC. If your files are saved in DVR format, you must have already downloaded the backup player box before doing backup. Then double click to open your USB disk to find your backup files and backup player. Double click

icon to install backup player.

b. After you install it, open this player and click “Open Path” button to open your backup file. Next, click play button to play the backup file. Double click the image and then right click to enable audio. If you save your backup files in AVI format, you can directly open your file by using the media player which supports this format.





Appendix B Calculate Recording Capacity

Users can calculate the size of hard disk according to the saving time and DVR recording settings. The DVR uses fixed video bit rate. The below are the details at different settings.

Resolution	Frame Rate Totally(FPS)	Video Quality	Bit Rate (kbps)	Used Space(MB/h)
CIF/D1	30(NTSC)/25(PAL)	Highest	2M	900
		Higher	1.5M	675
		Medium	1M	450
		Low	768K	337
		Lower	512K	225
		Lowest	256k	112

The calculation format is: **Total Recording capacity =Used space per hour (MB/h) (coverage rate of hard disk) × recording time (hour) ×channel numbers**

For instance, one customer uses PAL cameras, set resolution to CIF, video quality to Lowest, frame rate to 25 fps for enabling total 16 channels. He wants the unit to record continuously in a month. Below is the calculation:

Total Recoding capacity =112 (mb/h) X 24(hours/day) X30(days) X16(channels)= 1290240(MB)≈1260(GB)

Therefore, customers just install one SATA HDD with 1.5TB, it can almost record for one month.

Appendix C Compatible Devices

1. Compatible USB drive after test.

Brand	Capacity
SSK	512MB, 1G, 2GB
Netac	4GB
Kingston	2GB
Aigo	2GB
Smatter vider	1GB
SanDisk	4GB

2. Compatible HDD list

Brand	Capacity
Seagate Barracuda LP ST3200542AS	2TB
Seagate Barracuda 7200.11 ST31500341AS	1.5T
Seagate SV35.3 ST31000340SV	1T
Seagate Pipeline HD.2	500G
Seagate Barracuda 7200.10	320G
Seagate Barracuda 7200.10 ST3250310AS	250G
Seagate Barracuda 7200.11 ST3160813AS	160G
Seagate Barracuda 7200.10 ST380815AS	80G
Maxtor Diamondmax 21 STM3160215AS	160G
HITACHI Deskstar	160G/80G
WD WD1600JS	160G
Samsung HD161HJ	160G

Appendix D 4-CH Specifications

Compression format	Standard H.264
Video output	Composite：1.0V p-p/75Ω BNC×2 , VGA×1 , HDMI×1
Video input	Composite：1.0V p-p/75Ω BNC×4
HDMI/VGA Resolution	1920*1080/1280*1024 / 800*600
Record Resolution	352*288/704*576 (PAL), 352*240/704*480(NTSC)
Display Frame Rate	100FPS (PAL), 120FPS (NTSC)
Record Frame Rate	100FPS (PAL), 120FPS (NTSC)
Audio input	RCA X4
Audio output	RCA X1
Alarm input	NO or NC 4 CH
Alarm output:	1CH
Record Mode	Manual/Timer / Sensor/Motion detection
Simplex/Duplex/Triplex	Pentaplex
Network Interface	RJ45 (LAN, INTERNET)
PTZ control	YES
Communication interface	RS485 x 1, USB2.0 x 2(one for backup, another for USB mouse)
Disk info	SATA x 2
Remote controller	YES
Power supply	12V4A
Temperature	0℃-50℃
Humidity	10%-90%
Average Operating Power （Excluding HDD）	≤30W

Appendix E 8-CH Specifications

Compression format	Standard H.264
Video output	Composite：1.0V p-p/75Ω BNC×2 , VGA×1 ， HDMI×1
Video input	Composite：1.0V p-p/75Ω BNC×8
HDMI/VGA Resolution	1920*1080/1280*1024 / 800*600
Record Resolution	352*288/704*576 (PAL), 352*240/704*480(NTSC)
Display Frame Rate	200FPS (PAL), 240FPS (NTSC)
Record Frame Rate	125/200FPS (PAL), 150/240FPS (NTSC)
Audio input	RCA X4
Audio output	RCA X1
Alarm input	NO or NC 8 CH
Alarm output:	1CH
Record Mode	Manual/Timer / Sensor/Motion detection
Simplex/Duplex/Triplex	Pentaplex
Network Interface	RJ45 (LAN, INTERNET)
PTZ control	YES
Communication interface	RS485 x 1, USB2.0 x 2(one for backup, another for USB mouse)
Disk info	SATA x 2
Remote controller	YES
Power supply	12V4A
Temperature	0℃-50℃
Humidity	10%-90%
Average Operating Power （Excluding HDD）	≤ 30W

Appendix F 16-CH Specifications

Compression format	Standard H.264
Video output	Composite：1.0V p-p/75Ω BNC×2, VGAX1, HDMI×1
Video input	Composite：1.0V p-p/75Ω BNC×16
VGA Resolution	1920*1080/1280*1024 / 800*600
Record Resolution	704*576/352*288 (PAL), 704*480/352*240(NTSC)
Display Frame Rate	400FPS (PAL), 480FPS (NTSC)
Record Frame Rate	100/400FPS (PAL), 120/480FPS (NTSC)
Audio input	RCA X4
Audio output	RCA X1
Alarm input	NO or NC 16 CH
Alarm output:	1CH
Record Mode	Manual / Sensor /Timer / Motion detection
Simplex/Duplex/Triplex	Pentaplex
Network Interface	RJ45 (LAN, INTERNET)
PTZ control	YES
Communication interface	RS485 x 1, USB2.0 x 2(one for backup, another for USB mouse)
Disk info	SATA x 2
Remote controller	YES
Power supply	12V4A
Temperature	0℃-50℃
Humidity	10%-90%
Average Operating Power （Excluding HDD）	≤30W

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